THE JUDGMENT OF PROCEDURAL RHETORIC

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To my grandfather, Albert Ferrari, who bought me a Nintendo when I was two years old, worked three jobs so that I could grow up to be whoever I wanted to be, and remembered my name in the throes of Alzheime

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SUMMARY

This thesis establishes a theoretical framework for understanding virtual spaces and roleplaying in relation to Ian Bogost's theory of "procedural rhetoric," the art of persuading through rule systems alone. Bogost characterizes the persuasive power of games as setting up an Aristotelian *enthymeme*—an incomplete argument—that one completes through play; however, I argue that the dominant rhetoric intended by a team of game designers is subject to manipulation through player choice. Discrete structures within the play experience cause the meaning-making possibilities of a game object to pullulate in a number of directions. Procedural rhetoric is not comprehended or created when reflected back upon after play: we interrogate it, piece it together, and change it through play.

If rules are how the designers express themselves through videogames, then the player expresses herself by forming a personal ruleset—a *modus operand*i or ethical system—in response to the dominant rhetoric. Furthermore, game space is not merely the place where this dialectic occurs; it also embodies a ruleset in the way it organizes objects and directs the flow of play. The thesis proposes a model by which games, which are "half-real" according to theorist Jesper Juul, can be judged intersubjectively—that is, in a way that accounts for the objectivity of their rulesets and the subjectivity of player experience. By fully understanding the dynamic between the three procedural influences of rules, space, and identity, we can learn more about designing persuasive game systems and enhance the possibilities of subversive play.

CHAPTER 1

INTRODUCTION

In *Persuasive Games*, Ian Bogost establishes the concept of procedural rhetoric as the essential meaning-making function of videogames. It separates them from all other modes of representation.[1] This is a two-part concept derived from the fields of computer science and rhetoric. "Procedurality," as explained by Janet Murray, is one of the key properties of digital media. It is a computer's "defining ability to execute a series of rules."[2] "Rhetoric" refers to the art of persuasion, first found in Plato and then expanded by Aristotle. The field of rhetoric was later expanded to include all manners of expression, not just those intended to change the opinions of others. Bogost's defines procedural rhetoric as "the art of persuasion through rule-based representations and interactions rather than the spoken word, writing, images, or moving pictures."[3]

Although Bogost analyzes the political and social rhetoric of a few mainstream games such as *America's Army* and *Grand Theft Auto III: San Andreas*, he focuses primarily how game designers craft expressive rulesets for the purposes of persuasion in education, political, and advertising games. These artifacts are created by small groups of designers, unlike the teams of hundreds required to make an "AAA" console or PC game. Most persuasive games are also played in specific situations—the boss at your— new job asks you to complete a gamelike training module, or your friend sends you a link to a political game making fun of an unpopular politician, or the website you're using to scope out potential cars presents you with a sponsored game in a pop-up screen.

In order to understand more generally how all videogames—not just those created explicitly for the purposes of persuasion—express themselves through procedural rhetoric, we must explore how the rules of virtual spaces and player roles interact with the expressive ruleset established by game mechanics. *Persuasive Games* assumes two things: an ideal player who plays the game in a single, predictable way and a space that contains, rather than contributes to, procedural rhetoric. The more complex a game gets, the range of potential meanings it affords widens. A game's rhetoric changes through play, revealing multiple equally valid readings.

By "the rules of game space" I mean structuring play through geographic layout, architecture, and mise-en-scene. In the game industry, this is the job of level designers, world designers, and environmental artists coordinated by game designers. Most of the time, level design serves simply to focus or amplify the rhetoric of mechanics; however, it seems there are times that the very layout of a space and the objects found within it also compose an expressive ruleset. For example, a space that is narrow and unilinear forces its players to proceed in a predetermined way, while a wide and nonlinear space expresses some amount of freedom; this varying of agency, especially when such different spaces are strung together in sequence, act as commentary on the real world system or space that the game model. One of the end goals of the study will be to understand the procedural rhetoric that game spaces contribute divorced from the basic understanding of space as simply what contextualizes interaction and embodies mechanics--for instance, interrogating the social order argued for by the organization of architectural structures, how we interact with them, and how we move through them.

By "the rules of player roles" I mean the "projective identity" described by James Paul Gee in *What Video Games Have to Teach Us About Learning and Literacy*: the interface between our virtual identities and who we are in real life, or who we want our avatars to be based on our personal values, creativity, strategies, and the affordances of the role and the system surrounding it.[4] A common example of this would be a game featuring an ethical system that asks the player to determine the moral character of an avatar. To a lesser degree, combat-focused games that allow choices between open conflict and stealth, or long-range combat and close-quarters fighting, also demand reflection upon what kind of a soldier the player character might be. In order to construct a projective identity, one crafts a ruleset for one's behavior within the game world; this process is iterative, meaning that it develops as the game progresses while, for all intents and purposes, the mechanical ruleset remains the same.

Where does the role of the player fit into Bogost's original model? He relegates them primarily to filling in the gaps in an embedded syllogism:

> *In the context of procedural rhetoric, it is useful to consider interactivity in relation to the Aristotelian enthymeme. The enthymeme, we will remember, is the technique in which a proposition in a syllogism is omitted; the listener (in the case of oratory) is expected to fill in the missing proposition and complete the claim. Sophisticated interactivity can produce an effective procedural enthymeme, resulting in a more sophisticated procedural rhetoric.*[5]

But procedural rhetoric isn't understood as a gestalt, at the end of a play-session, while thinking back on the experience from an Archimedean point. The enthymeme Bogost

invokes does not, as Aristotle might have it, possess only one valid method of completion. This thesis will identify complex structures or moments within a play experience where a particular rhetoric is being generated through the interaction of mechanics, world design, and player identity.

In order to fully flesh-out this argument, I will analyze three games that represent three different ruleset balances or paradigms for procedural rhetoric. *Far Cry 2* will serve as the mechanic-heavy game,[6] *Morrowind* as role-heavy,[7] and *Left 4 Dead* as space-heavy.[8] Each game will also serve as a launching point for an ancillary argument. My analysis of *Far Cry 2* draws from Alexander Galloway's notion of social realism in games. The discussion of *Morrowind* examines Miguel Sicart's evaluation of ethical videogames and explores how procedural rhetoric is changed when the player decides to cheat or min-max. Finally, because *Left 4 Dead* is a multiplayer game, I use it to discuss how the individual identities generated by each player negotiate to form a community ruleset.

Finally, this thesis is not intended in any way to represent an essentialist argument about games. While it assumes procedural rhetoric as the primary meaning-making structure in games, it does not exclude the meaning contributed by narrative or visual rhetoric (though it will try to explain them under an object-oriented, procedural rubric). It is also implied that if any given game doesn't contain one of the attributes discussed—for instance, it is difficult to point to the mise-en-scene of *PONG* or the roleplay of dominoes—it does not invalidate the rest of the discussion. As Michael Nitsche says about game spaces, "[not] all games depend on or support such a placeness."[9] This is a modular, practical theory that describes independent systems at play in game design and

gaming. I will also avoid relying primarily on examples political games, because they have already been adequately explored by Bogost; that said, opening examples from the genre will help to elucidate my argument.

Accidental and Purposeful Alternate Reading

La Molleindustria's *The McDonald's Game* is an anti-advergame about running a vertically hierarchical, multi-national food conglomerate.[10] Its primary persuasive goal is to show that the necessary conditions of operating such an organization always lead to corruption.[11] Yet, for many players, the game instills pity for the hard work that McDonald's executives must pour into a losing battle against rising costs and diminishing revenue. Going to any forum or comment section about playing the game will yield results such as this:

> *[...] like, this game is really hard...I understand business and we learnt [sic] about McD's and how it works, but the darn corporate guy just keeps bitching and I can't do anything to please him, nor do I know how to.*[12]

This isn't a case of simulation denial—"the rejection of simulations because they offer only a simplified representation of a source system"—because players aren't rejecting the model or its argument outright.[13] And asserting that players are "missing the point" falls prey to an intentional fallacy. Where then does the disconnect occur?

The McDonald's Game breaks the operation of the corporation up into four discrete but interacting spaces: the farm, the processing factory, the retail location, and the corporate office. The cartoony aesthetic of each location doesn't express much, but the organization of the spaces does: by limiting the player to only one instance of each type of location, it expresses the fact that the play experience is meant to hold for all

similar spaces. The rules of the game thus hold true for every farm, factory, retail location, and office owned by the corporation. Another feature of the game is that all mechanics are location-specific. For three of the areas, there are both "responsible" and "reprehensible" actions that can be taken; however, in the fourth space, the corporate office, only unethical decisions can be made. This combination of space and action argues that corporate decision-making is always reprehensible.

Now we can look at how the player develops a projective identity through the course of play, crafting a personal ruleset for herself. At the beginning of the play session, one identifies primarily as "the player of a typical tycoon game." The game doesn't come out and tell players, "this is how evil McDonald's is," so the combination of cartoony graphics and engaging capital-building lends itself to being treated as a common webgame. A decisive moment comes after the initial thrill of exploring the games four spaces and their affordances, when the immediate positive feedback of expanding business gives way to the rising costs of operation.

At this point, players decide whether they're the kind of person who wants to indulge in cost-saving activities such as malicious child-targeted advertising, suppressing labor rights, mixing soy and industrial waste with cow feed, and tearing down the rainforest for extra crop space. This is when the player creates their projective identity, and we can identify at least three possibilities for the purposes of this exercise.

The first type recognizes the persuasive thrust of the simulation, but indulges in corrupt activity in order to see the play experience through to the end. The second also recognizes the argument, but chooses "defeat" rather than allowing herself to be corrupted by her position--the player tries to maintain honest business practices until debt

mounts up and she receives a "game over." The third identifies a different message: they may see that malpractice is the only way to maintain profitability, but they primarily identify as a dutiful executive with a responsibility to the company's shareholders. All three are valid interpretations of the game.

Another possibility, slightly less common than an accidental alternate reading, is the purposeful alternate reading. This involves exploiting or ignoring the conventional way of playing a game in order to generate a novel or unforeseen meaning. It is also possible, from the designer's perspective, to purposefully widen a game's possibility space so as to allow or even encourage such readings.

Train is part three of Brathwaite's "The Mechanic is the Message" project, as much an art installation as much as it is a game.[14] There is only one physical copy of the game, making it one of few members of the medium that retains an aura after the age of mechanical reproduction.[15] Surrounding the playable board-proper are two fetish objects: a Nazi typewriter Brathwaite uses to produce the game's rulebook and a broken window pane, which the players are encouraged to smash with a hammer at the beginning of the game, invoking *Kristallnacht*. Even if players don't immediately recognize the significance of these objects, they are presented in a straightforward and solemn way that informs how they should be interacted with; this is as close as any analog game can come to complex mise-en-scene.

Despite the presence of these objects, the game is presented without any contextual information. The rules don't explain what the game is about, they simply tells players their allowed actions and the order of play. Each of three players controls a train car on its own track, which is staggered against the other two. Each turn, players choose

one of four actions: load their train car, move their car, draw an action card, or play an action card. These actions cards allow players to accelerate their car, damage a track, repair a track, join their car with another, or derail another train to make it lose its passengers. Players are told that they get $100,000 for every tiny yellow game piece they bring to the end of a railway. Once a car reaches the end of a track, the player must remove its pieces and place them on a Terminus card. "The game," the final rule reads, "is over when it's over."

This ruleset and the tracks are designed for genuine tactical complexity: it is fun to try to stymy the efforts of other players to reach their Terminus, to break their tracks, to pack as many tiny yellow people into the trains as one possibly can. The game takes on new meaning, if one of the players hasn't already figured it out and shared with everyone else, once the first Terminus is reached. The Terminus cards reveal to what concentration camps the train cars arrive. This is a snap contextualization, a kind of narrative twist called *anagnorisis*: realizing that Bruce Willis was a ghost all along in *The Sixth Sense*[16] or that Oedipus is the son of Jocasta and Laius.[17]

To those who have not seen or experienced *Train*, it might seem that the game relies too heavily on this realization for its strength, that "the Holocaust is not a twist ending."[18] The game's greatest defense comes from Bogost, who argues that it is a "game of gestures."[19] Players modify their attitude toward the game and its pieces, according to Bogost, once they realize in what they are participating. A contextualization such as this takes on greater meaning in a game, when every past voluntary action of the player suddenly becomes a Chekhov's gun, than it does in any other dramatic medium. Some of these actions also show how players contribute to procedural rhetoric in unexpected

ways: Bogost observed that a number of players made it a personal rule to always organize the yellow game people into neat little groups after every turn.

Brathwaite does not intercede at any point during the game, and she won't comment on its meaning. Bogost himself holds that the game "never makes an argument about the Holocaust."[20] Yet surely it simulates something: first the mind of a strategic mass murder who has mentally converted human beings into numbers, second the sobering process of realization experienced by the German people after the fall of Berlin.

Another way to play *Train*, in the wake of common knowledge about its context, occurs when players go into it with eyes open. Players who play the game how it is normally played, at this point, are consciously playing the role of a Nazi officer. Thus, they may revel in their open brutality to see how it feels. Their efforts to be the best at delivering human beings to slaughter emulate the competitive nature of a military hierarchy Because the game doesn't provide a definitive end state in its rules, one player may choose a different goal: that of preventing play from continuing through a clever combination of actions.

If a player of *Train* foregoes the two mechanics of loading and moving trains, it frees up a considerable amount of turns for accruing and spending resource cards. The pool is limited, so the player is able to collect every "repair" card within the deck. Once she has done so, she has only got to break each of the three train tracks to end the game in a stalemate. If one balances the collection of cards with stalling tactics, it is possible to finish a game of *Train* without any tiny yellow people reaching a Terminus. The game becomes even more exciting once the players filling the roles of dutiful Nazis realize the strategy: they will begin racing to a Terminus or trying to pull a repair card in an effort to

prevent their own failure. Instead of competing against each other for a higher score, the Nazi players cooperate to quash their shared enemy. *Train* effectively becomes a simulation of wartime resistance.

It is *Train*'s spatial simplification of the German transportation system that makes this alternate roleplay possible. The design itself expresses a universality to a series of population displacements that in fact occurred quite distantly (spatially and temporally) from each other. In the dominant reading of the game first discussed, this placement of the tracks next to each other helps simulate the mentality of the Nazi officer who has turned people into numbers and their displacement into a uniform process. But because the entirety of the nation's railway is confined to three contiguous tracks, and because the three Termini exist along side each other, it also becomes possible to bottleneck movement in a way that wouldn't be possible during the actual conflict.

What we learn from this is that a player can purposefully reconfigure space and rules through play in order to generate alternate meaning. It is such purposeful reconfiguration that this thesis will focus on, explicating common structures at work in games and how they fit together to create opportunities for meaning-making.

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[1] Ian Bogost, *Persuasive Games: The Expressive Power of Videogames* (Cambridge, Mass.: MIT Press, 2007), 28-40.

[2] Janet Murray, *Hamlet on the Holodeck* (Cambridge, Mass.: MIT Press, 1997), 71.

[3] Bogost, *Persuasive Games*, ix.

[4] James Paul Gee, *What Video Games Have to Teach Us About Learning and Literacy* (New York: Palgrave Macmillan, 2007), 62.

[5] Bogost, *Persuasive Games*, 43.

[6] Ubisoft Montreal, *Far Cry 2* (Ubisoft, 2008).

[7] Bethesda Game Studios, *The Elder Scrolls III: Morrowind* (Bethesda Softworks, 2002).

[8] Valve Corporation, *Left 4 Dead* (Valve, 2008).

[9] Michael Nitsche, *Video Game Spaces: Image, Play, and Structure in 3D Worlds* (Cambridge, Mass.: MIT Press, 2009), 201.

[10] Paolo Pedercini, *The McDonald's Game* (La Molleindustria, 2006).

[11] Bogost, *Persuasive Games*, 29-31.

[12] nessie, comment in "McDonald's Videogame," *The Geek Forums*, comment posted February 6, 2006, http://www.the-geek.com/db2/index.php?showtopic=9221.

[13] Ian Bogost, *Unit Operations* (Cambridge: MIT Press, 2006), 107.

[14] Brenda Brathwaite, *Train* (Self-published, 2009).

[15] Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Film Theory and Criticism: Introductory Readings*, ed. Leo Braudy and Marshall Cohen (New York: Oxford University Press, 2004), 791-811.

[16] *The Sixth Sense*, DVD, M. Night Shyamalan (1999; Burbank, CA: Walt Disney Home Video, 2000).

[17] Malcolm Heath, trans, *Poetics* of Aristotle (London: Penguin Books, 1996), §8, 55a.

[18] This is what I said the first time I read an article about *Train*. Playing it changed my mind.

[19] Ian Bogost, "Persuasive Games: Gestures as Meaning," *Gamasutra*, June 30, 2009, http://www.gamasutra.com/view/feature/4064/persuasive_games_gestures_as_.php.

[20] Ian Bogost, "Persuasive Games: Gestures as Meaning."

CHAPTER 2

THE JUDGMENT OF PROCEDURAL RHETORIC

In his *Rhetoric*, Aristotle explains that there are three modes of persuasion: *logos*, *pathos*, and *ethos*.[1] Logos engages our reasoning faculties; it is primarily an intellectual appeal. Pathos is an appeal to our emotions, traditionally aimed at garnering sympathy or sparking anger. Ethos is essentially different from the other two. Instead of engaging a faculty of the audience, it makes a direct appeal to the reputation of the rhetorician. Most of the political and educational games analyzed by Bogost are the procedural rhetorical equivalent of logos—they make intellectual arguments about how a system does or doesn't work. Advertising games appeal directly to our emotions—our desire to possess a certain kind of car based on its associative value, or even engaging in the humorous use of a product in a simulated environment—and are thus an example of procedural pathos.

More mainstream games engage both our reasoning and emotional faculties, but their production values introduce a kind of "game ethos" into the equation as well. In AAA games, this ethos is directly equated to the amount of money spent on high definition visuals, realistic physics, and Hollywood-quality voice acting. All of it seems to say, "this is as real as interactive entertainment gets." A smaller, independent game presents itself as the work of a small team of passionate individuals exploring the depth and breadth of interactivity. Quaint visuals, experimental soundtracks, and off-kilter mechanics lend them the character of "indie-ness." Despite their differences, both of these artifacts ask their players to deal with them in a specific way: "I'm a space opera

shooter with a strong moral center," or "We're a collection of 8-bit explorations toward the essence of puzzle platforming."

The logos and pathos of games are clearly procedural rhetorics, as Bogost has convincingly argued: rule systems can make a direct appeal to our intellect or to our emotions. On the other hand, it seems as if the ethos of games remains firmly planted in older forms of rhetoric—verbal and visual. Games are rule-based expressions, they build worlds, and they permit interaction through play.[2] I propose that for each of these three axes of rules, space, and play, there is a higher and a lower order of expression. The higher order is procedural rhetoric, the premises that compose the core argument or expression of a moment within a game through logos, pathos, or both. The lower order is the fictive aspect of a game, its visual and aural qualities, its ethos.

This distinction between higher and lower echoes Juul's explanation that games are "half-real," a combination of (ontologically) real rules and fictional worlds. In Juul's model, rules are "objective, obligatory, unambiguous, and generally above discussion."[3] A ruleset, whether natural or designed, is something that exists in the world; there is no such thing as a "fictional" rule. A game's world, on the other hand, is entirely fictional:

> *The player controls a character; the game takes place in a city, in a jungle, or anywhere else. Such fictional game worlds, obviously, do not actually exist; they are worlds that the game presents and the player imagines.*[4]

For Juul, the rules and the fiction provide the player with cues to each other: rules lead players to imagine fictional worlds, while the fiction invites players to map their subjective understandings onto the rules.

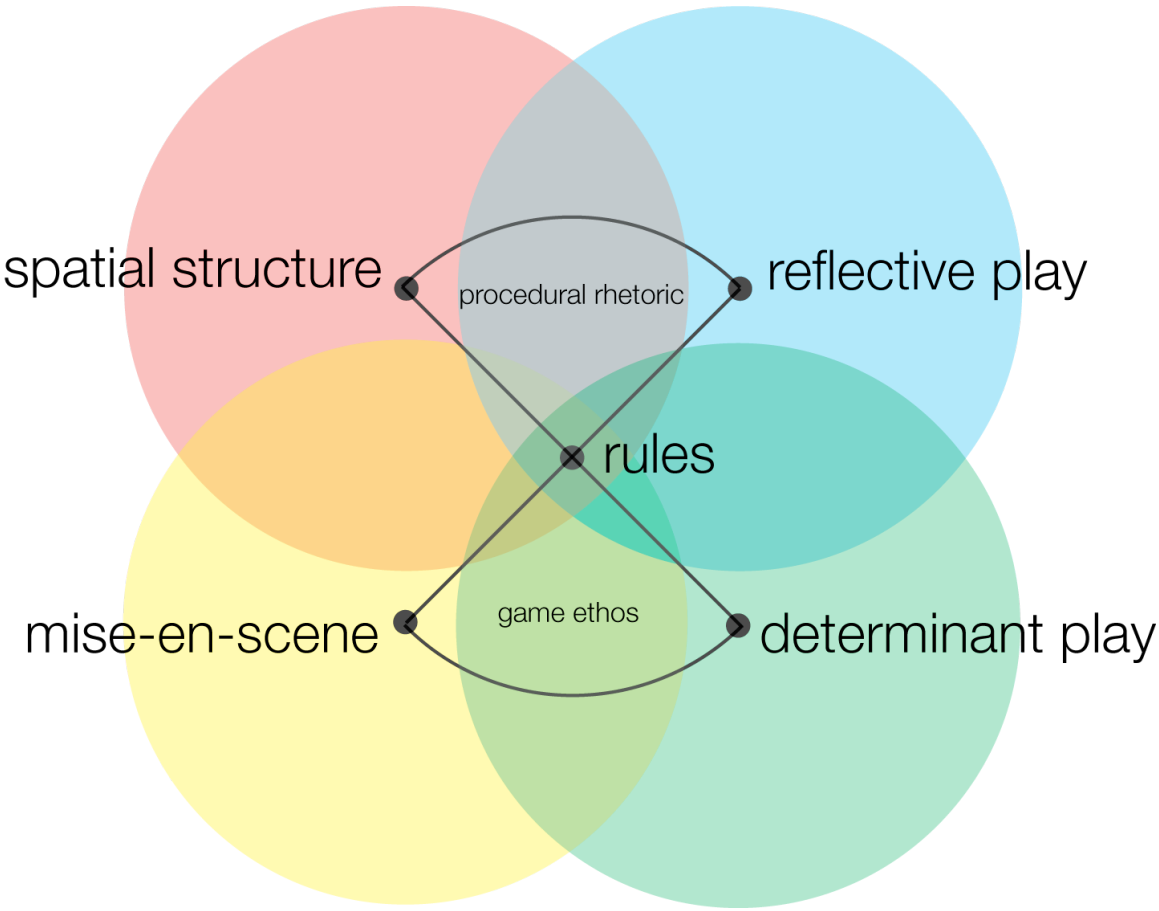

Figure 2.1 Model of Higher and Lower Orders

Figure 2.1 above is a concept map of the distinction between the higher and lower orders of ludic expression. On the left-hand side of the diagram are the higher and lower orders of space: spatial structure and *mise-en-scene*, respectively. On the right-hand side are the higher and lower orders of play: reflective and determinant play, respectively. Rules are at the middle of the diagram, because the distinction between the higher and lower order of rules is determined subjectively during the play experience. All of these terms are explicated in the chapter below, but a preliminary example will help relate each

element back to the distinction between the higher order (procedural rhetoric) and the lower order (game ethos).

One way to think about the concept map is that the lower order represents everything about a game that's generic, while the higher order is everything that's unique. The genre substrate at the bottom exists so that the player can quickly recognize what kind of game is being played. For example: mid-century firearms, bombed out buildings in Western Europe, and enemies shouting German beneath swaying Swastika flags work together to cue players to the fact that they are playing a WWII shooting game. Anyone with a knowledge of the era or experience playing a shooting game knows instinctively how to play: shoot the Nazis, proceed forward to a checkpoint. But the game's procedural rhetoric (its higher order of expression) is the unique way in which the game's space and rules simulate the experience of WWII, its expression of what the situation means or how it occurred.

Once the player's past knowledge of how this *kind* of game works has gotten her into the flow of play, she is ready to consider how this *particular* game is different from any other WWII game she has played before. She begins to piece together what the game might be arguing or expressing—forging meaning through action.

Reflective Judgment and Intersubjectivity

How do we judge the meaning of a game? And what is the power of any single meaning? A cynical answer would be that it comes down to its cleverness, how much of the game's experience it accounts for, and the reputation of the critic. Janet Murray's infamous interpretation of *Tetris*[5] as "a perfect enactment of the overtasked lives of overtasked lives of Americans in the 1990s" sparked an extended academic debate.[6] Juul

explains that any game "can potentially be read as an allegory of something else, but some readings will be more convincing than others."[7] In Juul's approximation, these interpretations arise from an interaction between the fiction and the rules: they are entirely subjective, they are fun to develop, and they are fun to argue about with others.

Murray's subjective reading of *Tetris* sparked so much ire because, on face value, it appears to view an abstract game as a narrative. But narrative isn't a necessary for interpretation. In order to understand why, it is helpful to look at the cognitive linguistic theories of Mark Turner. From his research into childhood development, Turner concludes that people understand the world through parables. For example, he observes that one of our most common linguistic turns is to convert events into actions:

> *We might say, for example, that a duplicating machine* chewed up *a document. The target story is a physical and spatial event without an actor: A document is damaged in a copying machine. The source story is a physical and spatial action with an actor: The actor chews food. We understand the target event-story of damage by projection from the source action-story of eating.*[8]

He calls this process "conceptual blending," but most of us know it under the name "parable." Parabolic thinking is a process of taking multiple inputs—thoughts, stories, events, actions, people, and objects—and creating a mental space where they all make sense together.[9]

McKenzie Wark might disagree with our describing the meaning-making process of play as parable. Wark invokes a fundamental difference between allegory (an extended

parable) and game with Galloway's notion of the "allegorithm," the bridge between play and code:

> *Games are not representations of this world. They are more like allegories of a world made over as gamespace. [...] What is distinctive about games is that they produce for the gamer an intuitive relation to the algorithm. The intuitive experience and the organizing algorithm together are an allegorithm[.]*[10]

Wark's "gamer theory" doesn't strive to establish any kind of uniform rubric for analyzing the relationship between player, game, and world. He narrates play experiences, allowing his mind to freely associate actions and events in the game with notions from philosophy and critical studies. Sometimes the connections are obvious, sometimes less so: *Katamari Damacy* becomes a digital Sisyphean task, while *Rez* models the divide between self and other.[11] Wark draws a roadmap from player to game that only he can decipher, but he nevertheless adequately problematizes an unreflective association of allegory/parable and game.

Finally, the critical model introduced by procedural rhetoric seems like an attempt toward a greater degree of objectivity in game interpretation. Bogost accomplishes this by thinking primarily from the point of view of a singular designer: in his model, the activity of players simply fills in a blank that the procedural rhetorician left for them. Interestingly, Bogost's use of the Aristotelian enthymeme as a model for design is predicated upon his earlier explication of the "simulation gap" for use as a critical device. In *Unit Operations*, he defined the simulation gap as the space "between the rule-based representation of a source system and a [player]'s subjectivity."[12] This gap creates a

discomfort in the player, and the player creates meaning by working through that discomfort. By asserting the enthymeme as good design practice—by showing how a designer cues the player to know exactly how to navigate the simulation gap—Bogost subverts good play practice. How then do we reclaim the semblance of objectivity that the structure of procedural rhetoric affords without stifling the creativity of the player?

I suggest that the answer comes from Hannah Arendt's notion of "intersubjectivity." In her lectures on Kant's *Critique of Judgment*, Arendt distinguishes between Kant's notions of "determinant" and "reflective" judgment. The first category of judgment involves judging an object or idea under rules that have been established beforehand; the latter attempts to make a judgment about something for which there is no precedent, "deriving the rule from the particular."[13] It is Kant's focus on nature as a set of logically comprehended rules that makes his philosophy a useful analytic tool for thinking about games; this distinction between judgments is also helpful because it mirrors Bogost's distinction between system operations and unit operations (or top-down versus bottom-up creations of meaning).[14] Reflective judgment is the key to aesthetic thinking, but, unlike determinant judgment, it can never attain objectivity because it can't proceed from nature via reason alone. Yet Kant insists that beauty can be universally recognized; he holds that our *sensus communis* makes this possible—our relation to others, our ability to empathize, and our membership in a community of similar minds.[15]

Intersubjectivity (or what Kant called "plurality" is thus a middle ground between complete subjectivity and objectivity—a way of couching subjective judgments in terms that can be understood by others if not necessarily agreed with.[16] I propose that an intersubjective critical assessment of a game proceeds from an categorization of its rules

and their dynamics, to an exploration of how its space constrains movement and action, to an analysis of the play experience from the perspective of roleplay and skill acquisition.

Rules

Games are composed of normative statements about how objects, processes, and agents work within the play experience. The most visible of these, such as those that determine when a game is over, are what we commonly refer to as the ruleset. Miguel Sicart explains that rules "create affordances and constraints for interactions" that "optimally show how the object should be used."[17] Playing a game means navigating the possibility space created by those constraints. The unique thing about videogames—what separates them from analog games—is that they exist as rules within a computer program, as code. Even their non-procedural assets are stored as code, typically built using software that is also code. Most of the formulae that compose the game's simulation of a real or imagined world or system are stored as "black box" code.[18] This means that they are invisible to players, although their operation may be divined through critical play.

Fox Harrell explains that "the process of translating from ideas into imperatives has profound consequences." [19] This is essentially the way programming works: one selects a language or platform, which has its own built-in ways of parsing information and commands, then authors a system of rules to achieve a desirable effect. Harrell concludes: "in a concrete material sense the mark of the programming language as a primary characteristic of computational media is always evident."[20] In the case of games, composing a ruleset (or coding, in the case of videogames) creates a platform for the

performance of the player. In order to play the game, one must learn its language. Any possible expression of the player will always make the influence of the game's language (its rule system) evident in a concrete, material sense.

Mechanics

A special class of the visible ruleset, called a mechanic, is that which allows a player to interact with the game state. Including mechanics under the heading of "rule" is noncontroversial, following a dialogue on the ontological distinction between the two by Sicart and Aki Jarvinen. First it makes sense to look at how the MDA framework, a game industry white paper, defines mechanics: "Mechanics are the various actions, behaviors and control mechanisms afforded to the player within a game context."[21] Sicart rightly points out that this loose definition includes an array of performative aspects of play that actually aren't designed into the game, such as strategy formation and physical behavior.[22] Jarvinen asserts that mechanics are "a particular set of rules available to the player in the form of prescribed causal relations between game elements and their consequence to particular game states."[23]

Sicart echoes Jarvinen's version of the definition, while removing their classification as rules and the emphasis on causal relationships. More important than his particular wording of the definition is a claim he makes about their ontological distinction from rules:

> *Game mechanics are concerned with the actual interaction with the game state, while rules provide the possibility space where that interaction is possible, regulating as well the transition between states. In this sense,*

> *rules are modeled after agency, while mechanics are modeled for agency.*[24]

He concludes with the assertion that, ontologically, "rules are normative, while mechanics are performative." The only strange thing about this distinction is that a core strength of his definition and explication, according to him, is that it fits within the rubric of object-oriented programming. Yet in order for the distinction to hold up, if it can hold up it all, one must assume an ontology that allows humans to perform while withholding this state from objects. In fact, both humans and objects can perform. Rules structure performance, and performance is always distinct from and contingent upon rules. This is true in the case of analog games, but it becomes even more obvious when one considers videogames at the level of code.

Code for governing the actions of non-human agents can be condensed down to a series of IF-THEN logical statements: "if object X is within Y distance of object Z, then execute attack." On the other hand, mechanics are expressed within code as: "if controller input is button B, then execute attack." Mechanics are thus nothing more than normative, causal statements (rules) taking the special object case of "player." Performance is something that comes after the existence of rules—it is, in fact, everything that Sicart goes to so much trouble to exclude from his definition when he critiques the MDA framework. An important thing to note is that one aspect of performance is determining which mechanics to use; although mechanics are normative, their existence implies rather than demands their use.

Deciding Which Rules Mean

Through play, we mentally separate the rules that forge a procedural rhetorical expression from those that don't. The lower order of rules composes the game on a functional level; physics engines that grant gravity and weight to in-game objects and characters belong to this lower order of rules. Although it may seem strange for avatars in a *Halo* game to be able to vault twice their height in relatively slow-motion, these values are calculated and tuned for optimizing the combat experience rather than formulating an alternate theory of gravity.[25] The higher order of rules is that which makes a claim about how a system in the world could, should, or does work.

Many rules in the lower order attempt to simulate how objects in the real world actually work, but they do so non-controversially. For example, a gatling gun emplacement, in most any shooting game, will overheat if it is fired consistently over a moderate period of time. This both balances the game—because such weapons are used in situations where calculating ammunition consumption (the typical limiting factor on weapon use) becomes cumbersome to design—and adds a touch of realism to the experience. But it's not making an argument about how wars are fought, nor is it expressing a hypothetical truth about the nature of violence.

Players elevate rules to the higher order by recognizing those constraints that generate meaning for them personally; we do this by navigating the simulation gap between the subjective experience of the player and the game's simulation of a real-world system. It is a process of testing the possibility space, questioning its construction, and making reflective judgments about it. For example, in *Civilization IV*, religious Monastery buildings have the effect of adding +2 to Culture and +10% to Research

(quantifiable resources used in developing technology).[26] Monasteries become obsolete following the development of the Scientific Method technology, which means they continue producing culture but not research. There is a historiographical claim here: monasteries contributed to the development of technology in a pre-scientific era, but they have no quantifiable value to research after the Scientific Revolution. The culture value of +2 remains the same objectively while diminishing in importance relatively (as other, more advanced buildings might produce +10 Culture).

But did all monasteries historically contribute to knowledge? What about the monasteries that destroyed the heretical writings of would-be scientists? Conversely, is it true that monasteries ceased producing technological research after the Scientific Revolution? Surely this ignores Gregor Mendel's early experiments in plant genetics and the perfection of fermentation by the Trappists. These complexities of history are abstracted from the individual buildings, making their static mathematical values potentially controversial—it generates a simulation gap. One important thing to note is that these values are not hidden from the player in the *Civilization* series; they are a rare example of ideological transparency in game design.[27] Players are expected to actively study the assignment of these values in order to properly strategize within the game, making it particularly fertile ground for procedural rhetorical reading.

As we will see, discerning between the two orders of rules requires non-trivial effort on the part of the player. In fact, it is easy to fall into the trap of the intentional fallacy when discussing rule systems. The example from *Civilization IV* above, for instance, has been debated casually between designers and scholars.[28] Few game designers have the liberty to say "what they meant" by a particular design choice, if in

fact anything was meant by it at all.[29] These design decisions gain meaning during play. It is entirely up to the player to decide what any given rule or dynamic means, to discern whether it belongs to the lower or the higher order. The important thing, in the context of this thesis, is to give players the critical tools they need to articulate how they made this distinction. We turn thus to space and play, the higher and lower orders of which are necessary to understand in order to make holistic procedural rhetorical judgments.

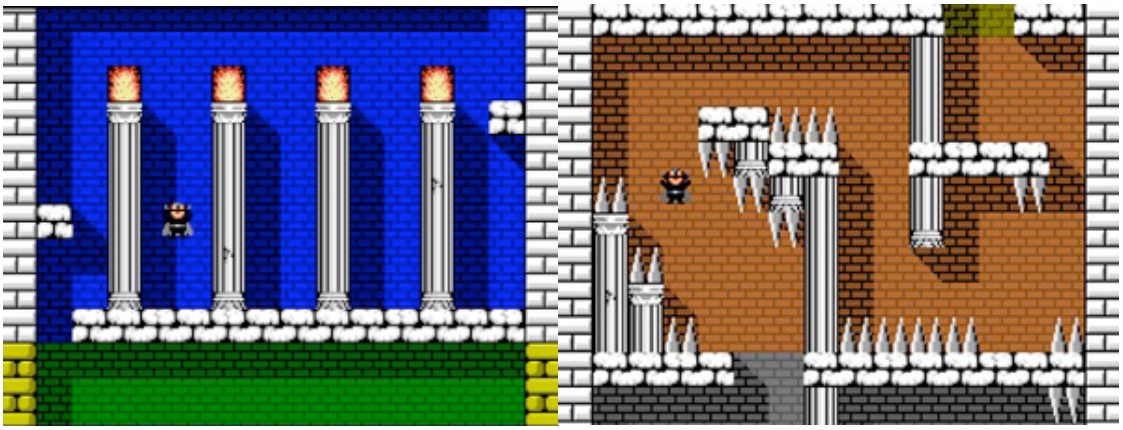

Figure 2.2 *Mighty Jill Off*

Space

Anna Anthropy is an indie game developer whose area of expertise is the manipulation of space, or the manipulation of a player through level design. She is also a pervert, and she has been known to make games both tangentially and directly related to her sexual life as a sadomasochist. For Anthropy, a videogame "is a space constructed out of communication, and communication is the realm in which flirtation and seduction happen."[30] As one of the few self-proclaimed queer-game designers, Anthropy's work embodies what Fox Harrell calls cultural computing, which "entails engaging commonly

excluded cultural values and practices that can potentially spur computational innovation, and can root and invigorate expressive computational production."[31] She wields level design in a personal, political way as a primary meaning-making structure.

Figure 2.2 above shows two screens from Anthropy's *Mighty Jill Off*, which casts the player as "the queen's" leather-clad "slut" and commands her to climb.[32] The screen on the left requires the player to understand only one thing: the height and breadth of any single jump. It requires careful timing, but all one has to do is repeat a process of ascension, slight horizontal movement to the right, and descending. After four iterations of this movement, the player will perfectly understand the capacities of her jumping ability and the mathematical formulae underneath it. The screen on the right, from later on in the game, demands the use of a secondary ability: rapidly tapping the spacebar in order to hover slowly downward over the spikes on the ground.

The purpose of the game is threefold: to manipulate your emotional state through varying challenges and spatial configurations, to force you to rapidly slam on the Z button as if you were a female in the act of masturbatory clitoral simulation, and (above all) to make you do what Anna Anthropy wants you to do—a procedural model of the slave/master relationship. The rhetoric of space is less clear than that of rules; it is more pathos than ethos. Anthopy's work proves that data-intense games, those that don't execute processes nearly so much as they store compelling static assets, can still manifest one of the essences of the medium: control through spatial design.

Bogost argues that, of all Murray's original qualities of computational media ("procedural, participatory, spatial, and encyclopedic"),[33] procedurality alone is unique to the digital and thus central to its essence.[34] Interaction and spatial design aren't unique to

computational media. But the design of spaces to be moved through in a particular order and manner, to be interacted with in a constrained and purposeful way, does seem to be unique to procedural structures: interstate systems, TSA checkpoints at the airport, and games. It is not enough to say that computational media in general, or videogames specifically, are spatial. One must recognize exactly how the space is being used, procedurally. One must also discern between the lower order of space (mise-en-scene) and the higher order (spatial structure).

Mise-en-scene

Without the cute pixel art of a leather-clad submissive leaping over spikes and flames, the rules and interaction model of *Mighty Jill Off* are still "about" sadomasochism. But it's a lot easier to make the desired (or designed) connection between rules and space because of that cute pixel art. The lower order of game spaces is *mise-en-scene*, a French term originating in stage theatre that later became popular in film theory. It literally means "putting on stage," the styles and objects present at any given moment to our visual sense: props, lighting, and set decoration. It even extends to the purely visual qualities of actors and camera movement, angle, and lens choice. Mise-en-scene is an aspect of visual rhetoric.

This is the fictive context of a game, sometimes called the "skinning" or "dressing." Raph Koster presents the most convincing case for the power of mise-en-scene in games:

> *The bare mechanics of the game do not determine its semantic freight. Let's try a thought experiment. Let's picture a mass murderer game wherein there is a gas chamber shaped like a well. You the player are*

> *dropping innocent victims down into the gas chamber, and they in all shapes and sizes [...] I do not want to play this game. Do you? Yet it is Tetris.*[35]

Of course, the very fact that Koster was able to come up with this example shows that the bare rule structure of *Tetris* implied the fictional context all along. Although it took a non-trivial amount of imagination from Koster, his denial only serves to prove the interpretive role of the player in building procedural rhetoric.

Originally, mise-en-scene had a functional use within videogames of the adventure genre. In text MUDs, exploration of the game space consisted primarily of reading the descriptions of rooms to figure out what actions had to be taken to move forward. Players finding themselves in a parlor might read a mention of voluminous red curtains placed conspicuously against one wall; this would cue the player to attempt a command like this: PULL CURTAIN. Once 2D graphics became the norm for adventures, game designers had to carefully design environments to direct the player's pointing-and-clicking to non-obvious interacting points. With the advent of 3D adventure games, such as *Myst*, mise-en-scene lost most of its functional value as puzzles became less environmental and more like isolated mini-games.[36]

Yet mise-en-scene still retains its core rhetorical value: exerting an influence over players by providing cues for how they should behave within the game space.[37] This is a reversal of how mise-en-scene operates in the cinema, where it amplifies acting rather than informing it:

> *The structures of the mise-en-scene flow from it [acting]: decor, lighting, the angle and framing of the shots, will be more or less expressionistic in*

their relation to the behavior of the actor. They contribute their part to confirm the meaning of the action. [38]

Despite this reversal of influence, that positive feedback mentioned in the final sentence remains in games: a player who follows the proper cues from mise-en-scene will see her actions contextualized in a meaningful way. Looking back, the environment will appear to be a product of her potency rather than a carefully constructed, persuasive illusion.

In *The Elder Scrolls IV: Oblivion*,[39] hues are used extensively to convey dominant emotions to the player. The deep crimsons and bright flashes of orange that characterize the demonic Oblivion planes keep players on their guard, wary of the many dangers and deceptions present.[40] Or consider *Half-Life 2*'s Ravenholm level, which the level designers have littered with saw blades and gasoline barrels in order to encourage a kind of grindhouse-style play with the game's signature Gravity Gun.[41]

The modes of play suggested by mise-en-scene do not always account for player desires or even suggest the most skilled method. It is, first and foremost, a dramatic device intended to manipulate. In the case of *Oblivion*, defensiveness may in fact be the optimal mode of play while treading the demonic realms; however, using the Gravity Gun, while satisfying, is never as strictly optimal as using traditional weaponry in *Half-Life 2*. It is also possible that the tactics suggested by mise-en-scene don't fit the role that players see themselves as playing: "a heroic knight isn't afraid of a red-tinted level design!"

This seductive, lower order of space contributes to a game's fiction. Following Juul's description of games as existing between "real" rulesets and "fictional" worlds, we

might mistakenly assert that game spaces themselves are entirely fictional. This is, in fact, not the case:

> *However, space in games is a special case. The level design of a game world can present a fictional world and determine what players can and cannot do at the same time. In this way, space in games can work as a combination of rules and fiction.*[42]

In the same way that rules cannot be fictional, the composition of a space cannot be "fake." It is explicitly designed, but that doesn't make it any more fictional than a designed ruleset. The higher order of game space is this composition.

Spatial Structure

The structure of space has its own de facto cultural and conventional rules of thumb. Every major movement in architecture and interior design holds a top-down ideal, the end goal of any given kind of space. Although the placement of objects in a room can never be strictly enforced by rules, there are optimal solutions to design patterns assuming a given ideology. In game design, each development studio further codifies these optimal solutions; because each studio has its own modus operandi that it doesn't share with its competitors, working solutions to common issues arise.

Michael Nitsche explores a number of common spatial structures within games: the track, the maze, and the arena. The "track" archetype doesn't describe the structure of a space so much as how one moves through it: along a single axis, in one direction.[43] We can extrapolate a bit to notice that this axial movement tends to manifest in spaces that are long, narrow, and constrained vertically. Genres that fit this spatial type include side-scrollers, racing games, rail shooters, and corridor shooters. There is a distinct difference

between the virtual space of a "track" style game and its possibility space: the diegetic space hints at extending outward and away from the track, but the player cannot leave it.

Nitsche's most extensive discussion is of "maze" structures, perhaps because they are the most common in contemporary videogames.[44] He includes unicursal labyrinths here (mazes with one path, no branches), but these are structurally indistinguishable from tracks. The primary attribute of the maze is that it branches; sometimes players can move backwards through the maze—as in an adventure game—and sometimes they're drawn forward as if along a river. Nitsche abstracts the category from literal mazes to include logic mazes and rhizomes. At this point, the structure becomes nothing more than a series of interconnected location nodes.

Finally, the "arena" type is used most often in competitive shooters and player-versus-player MMOGs.[45] Nitsche explains that its primary structural attribute is its bounded-ness; it makes literal the "magic circle" notion of Huizinga. These can be symmetrical or asymmetrical, but their goal is to make competitive play spatially egalitarian. There is no notion of single-axis motion through these spaces, except in extreme cases that must be explicitly designed (such as the series of portals in *Halo* map "ChironTL34"). One of the distinguishing features of these spaces, even from early competitive shooting games such as *Quake*, is their verticality. They are often, essentially, multiple 2-D spatial segments stacked on top of each other and selectively porous—that is, there are key locations where the player can transition between levels.

Nitsche begins his discussion of these spatial structures with the comment that the physical attributes of game spaces are often muddled with how they are used.[46] It may be

impossible to entirely divorce a space from the types of play that it encourages. Nitsche further admits that his is only one way of understanding game structures:

> *Tracks/rails, labyrinths/mazes, and arenas come to life through these architectural details and foster certain forms of interaction. While this arrangement might not be complete—for example, a different argument might work at the level of the room and house and concentrate more on relations of inside and outside—it nevertheless provides a set of spatial patterns.*[47]

This "different argument" is exactly what I am interested in exploring. From the tracks, mazes, and arenas discussed we can extrapolate a set of core attributes for any navigable space: width, verticality, and linearity.

A space can either be narrow, as in a corridor, or wide, like an open field. The verticality of a space determines whether players, through jumping or climbing, can take high ground or even an alternate contiguous path to the same destination. Width and verticality can be seen as two sides of the same coin—they constrain or encourage the player's freedom of motion in a way that tangibly influences a game's possibility space. Finally, spaces can either be linear, multilinear, or nonlinear. A strictly linear space is nothing more than a straight path from one location to another not admitting of divergence. Multilinearity implies a branching of multiple paths from one location to another, sometimes affording choice and sometimes forcing one of the paths upon the player. Nonlinearity describes a space that can be navigated in any direction one desires according to whatever goals the player has set.

Level design should best be approached from its modularity—this is how they are constructed in many 3D engines, as standard geometric volumes either subtracted from a solid or added to a void. The attributes of width, verticality, and linearity are matched together to compose a single unit of space. By alternating units of varying characteristics, level designers can manipulate the emotional state of players. The narrow, low, multilinear corridors of *Doom* are explicitly designed to frighten and confuse players; it only opens into wider spaces when another game element, boss enemies, can bear the burden of titillating players.[48]

The composition of a game space also determines what mechanics and rules factor into the game experience. According to years of playtesting experience, David Jaffe asserts that:

> *They WILL NOT use ANY mechanic they do not need to use. They will take the path of least resistance to get from A TO B. So just because the developer OFFERS a way to dodge bullets skillfully, and just because a game allows the player to slow down time and reverse it when things get tough (for example), the player- unless he has HAD to use those skills alot earlier in the game- will probably not call upon them.*[49]

If a game includes a jumping mechanic but features only flat levels with no obstructions, it will express a fact well known in the real world but not in the simulated worlds of most games: "there is no point in jumping." A player of *Super Mario Brothers* will come to the opposite conclusion, one also held by fans of Olympic sports: "jumping is the purest expression of human potency."

Play

In previous discussions of procedural rhetoric, play is perhaps the least well understood. Bogost doesn't go so far as to assume a message model of meaning, by which the designer creates an artifact and sends it out to the player to be consumed, but we cannot ignore his invoking of Aristotle's enthymeme. Both Aristotle and Plato held conversational knowledge building, or dialectic, as an ideal. But both men always assumed that they already knew the answer to the question being asked; it was their goal to convince students that they had helped reach an unforeseen conclusion. Designers can package a game and send it out to the player. At this point what they've crafted is a system. The system is persuasive, but the designer can't control what meaning will be generated once the game is played.

Miguel Sicart also draws from Aristotle when he casts the relationship between a game and its players as an ontological distinction of "potentiality" and "actuality." He describes a game's potentiality as "the material conditions of a system composed of rules intended to create a ludic experience."[50] Frank Lantz argues that games aren't media but cultural processes.[51] In Sicart's terminology, games *can* be media: before they're played, they are game objects—a form of media. But they become game "experiences" once the player enters the equation. The actuality of a game is this experience, not the object. Lantz simply denies the existence of the potentiality, seeing "game" as the actuality.

To discern between the lower and higher orders of play, I will return to the earlier discussion of Kant's determinant and reflective judgments. Determinant judgments proceed in a top-down fashion from scheme, or types, to the particular, while reflective judgments derive a rule from the particular by treating the art object as a novel object

divorced from nature. In my example of the WWII shooting game, I discussed how the genre conventions of the game cue a player to understand how to react. Those conventions are a mix of stock rules and mechanics for the genre combined with stock mise-en-scene (Nazis, Swastikas, bombed-out villages).

The lower order of play, or determinant play, is the mode of interaction a player a falls into when she begins playing. She familiarizes herself with the controls, testing options for taking cover and aiming down the iron sights of her guns; she takes a few shots at the first group of enemies, feeling out their behavioral scripting and how bullet wounds affect them. Now consider, for example, the possibility that the player is used to playing shooting games where there are a finite number of enemies: once she clears the area, she feels confident that she can leave cover and proceed safely to the next part of the level. But imagine what happens in the player's mind if, as she begins to proceed, more enemies begin streaming into the room from off-screen.

This rule, that enemies will continue to spawn in an area so long as the player remains, implies something about the battle being fought: there is a virtually infinite supply of enemy combatants, and clearing a room can't be considered an end goal. This serves both to increase the "fun factor" of the game, feeding the distinct pleasure of immersion, and to argue the futility of a "kill a set number of enemies to proceed" mindset. The player must now learn to proceed through an area while continuing the fight. A convention of the WWII shooter has changed, and the player has altered her strategy to account for this new rule. Play has become reflective, entering into the higher order. This is where procedural rhetoric is judged.

Roleplay and the Projective Identity

Roleplay is a curious aspect of play that straddles the distinction between the high and low orders. In the case of relatively primitive games, much imagination is needed to generate a role. "Encyclopedia of 8-Bit Heroes," a project of GameSpite magazine, contributes backstories for memorable heroes, villains, and bit players of the NES era.[52] For example, Ben Elgin probes the inner mind of the blue marble from *Marble Madness*:

> *Then you see him on the course ahead: Your dark nemesis. Do you evade, feint, play the eternal game of cat and mouse? Or charge straight for him, feeling the impact, shell against shell, praying to the spherical gods that he shatters before you succumb?*[53]

The phenomenon is even more widespread in games involving named protagonists and player-created avatars, manifesting at the extreme in cos-play and LARPing.

Roleplay is a two-part process: first, reading a world and deciding the "proper" way to act within it; second, forging a unique identity by adding a personal touch to the conventions provided. Mise-en-scene (world design and character design) provides a meaningful context for the player's actions, but another key quality of games that encourages roleplay is embodiment:

> *Embodiment is the property of being manifest in and of the everyday world. Embodiment constitutes the transition from the realm of ideas to the realm of everyday experience. [...] Embodiment, then, denotes not physical reality but participative status.*[54]

Dourish was writing about human-computer interaction, but his explanation of the phenomenon avoids many of the pitfalls assumed when later game scholars expressed it.

Namely, he divorces the concept from physicality—meaning it doesn't lead to the false conclusion that the Wii is a more "embodied" experience than non-motion-controlled games—and he does not anchor it to the idea of identification between a real human body and a virtual human body. Dourish explains how something like the wind in *Flower* is an embodied experience, despite its loose control method and lack of an in-game "body."[55]

In *World of Warcraft,* specific roleplaying servers exist for players who desire total fictive immersion.[56] Players study the lore and appearances of their member races and professions in order to mold the character they want to play: Trolls live in tribal huts, ride raptors, and breakdance, so roleplaying a Troll often involves engaging in a series of ethnic cliches based on stereotypes of African culture—speaking in broken English, pretending not to understand technology, or rolling a Hunter. In the days of MUDs, when players received less vivid cues from the world and the freedom to describe their own characters, much more diversity in roleplay could be observed (proportionately, as most of these populations numbered in the few hundreds).

Roleplay enters into the higher order as a form of counterplay when the player takes a role that runs counter to how the game is usually played. Counterplay, also called critical play or metaplay, includes cheating, subverting a game's purpose, or adding personal rules such as permanent death. An example of this is the *My Trip to Liberty City* machinima made in *Grand Theft Auto III*.[57] Because the game attracts so much negative attention, both legitimate and ridiculous, from culture critics, it is the site of various attempts to subvert the inherent violence of its system. The game includes a camera and picture-taking mechanic, but these are under-implemented in the story missions. Jim Munroe makes picture-taking his primary goal within the game. Taking the role of a

Canadian tourist, he exploited the architectural focus of the world design to visit beautiful locales and snap pictures of them. Bogost argues that this is not a matter of rejecting the violent themes of the games but of repurposing them to generate new meaning.[58]

Counterplay is not the only form that higher order play takes. A more common kind of reflective play entails creating what James Paul Gee calls a "projective identity,"

> *playing on two senses of the word "project," meaning both "to project one's values and desires onto the virtual character" [...] and "seeing the virtual character as one's own project in the making, a creature whom I imbue with a certain trajectory through time defined by my own aspirations for what I want that character to be and become" [...]*[59]

This is an entity that interfaces between the role a player holds within a game—a "virtual identity"—and who she is outside the game—a "real-world identity." Strictly speaking, a character within a game might not always be able to do the things its players want it to do; it might not be able to be the person they want it to be. In *Fallout 3*, a severe limitation of resources early in the game sometimes leads even a well-meaning player to have her avatar work as a loan shark, steal from shopkeepers, or even commit murder.[60] Nothing about the player character prevents it from doing whatever it takes to make ends meet, nor does the player's moral repugnance against theft strictly delimit her actions within the game. But, if the player intended her character to be a model of righteousness, then the projective identity has been violated.

The role being played is something that is constantly evolving; the projective identity is the space of purposeful enforcement of that role. It is here that the player decides on her own rules of behavior within the game world. If we think about Bogost's

model of the Aristotelian enthymeme as a set of logical premises constituting procedural rhetoric, then we can imagine these rules of the projective identity as contributing additional premises to the procedural argument. Designers may try their best to guide how these premises are formed, or how the simulation gap is navigated, but it is ultimately the player who determines them through reflective play.

Conclusion

Returning now to the concept map of Figure 2.1, it should be now clear what each term means and how they fit together. Mise-en-scene, determinant play, and non-controversial rules together form a game's ethos (or character), the generic substrate of a play experience. Spatial structure, reflective play, and expressive rules compose procedural rhetoric. A game's ethos helps a player quickly recognize how to play a game, while procedural rhetoric is created and judged in the transition from determinant to reflective play. For different players, the distinction between the set of non-controversial rules and the set of expressive ones will vary greatly. By relating a given rule to the way it influenced how the player proceeded through a unit of game space, that player is able to communicate to others their "reading" of a game.

This ability to distinguish between the lower and higher orders of ludic expression, and then to share this discernment with others, is predicated upon the intersubjectivity of aesthetic judgment: our ability to make individual subjective experiences legible to others by virtue of being part of a like-minded community of players. In order to test my concept map as a critical model and communication tool, the next three chapters use it in close readings of *Far Cry 2*, *Morrowind*, and *Left 4 Dead*. Each case study will focus on a different aspect of procedural rhetoric: *Far Cry 2* for

expressive rules, *Morrowind* for reflective play, and *Left 4 Dead* for spatial structure. None of the following critiques are meant to be "the final word" on how to look at any of these games. Rather, they are introductory attempts at using the model. The purpose of the exercise is to fill out the concept map model with features from each game so that I may communicate as best as possible how I formed my procedural rhetorical readings. This will actually make it easier for anyone who disagrees with my reading to pinpoint the exact point of contention.

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[5] Alexey Pazhitnov, *Tetris* (Alameda, California: Spectrum HoloByte, 1986).

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[8] Mark Turner, *The Literary Mind* (New York: Oxford University Press, 1996), 28.

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[24] Sicart, "Defining Game Mechanics."

[25] Bungie Studios, *Halo: Combat Evolved* (Microsoft Game Studios, 2001).

[26] Firaxis Games, *Civilization IV* (2K Games, 2005).

[27] Ian Bogost, Simon Ferrari, and Bobby Schweizer, *Newsgames: Playing with Journalism* (Cambridge: MIT Press, 2010), forthcoming.

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CHAPTER 3

SUBVERTING THE POWER FANTASY

Far Cry 2 is a single-player, first-person shooter about the cycle of violence in a fictional, war-torn Central African nation. It serves as the ideal example of a rule-heavy procedural rhetoric; it is set in a wide, nonlinear space, and it encourages a reactive play style. Released in late 2008, the game represents the peak of the "holodeck" model of immersion according both to Jesper Juul[1] and the game's creative director, Clint Hocking.[2] Murray originally defined immersion as "the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all our attention, our whole perceptual apparatus."[3] *Far Cry 2* is not only sensually immersive but also conceptually complete as a virtual reality. It boasts robust enemy NPCs who pursue players and coordinate strategy, a world map that takes a significant amount of time and effort to traverse, and a semi-realistic ecosystem that can regrow after being burned down. As we will see, the game's immersive qualities are asserted as "realistic" in order to convince the player to buy the designer's procedural model of African conflict.

Rules

Hocking and his team at Ubisoft attempt something in this game that we usually don't see in first-person shooters: the ultimate persuasive goal of the game is to convince players that the very combat mastery they develop through the course of the experience is a symptom of a more general violent world order. The strong rhetoric of impermanence, replaceability, and corruption works against the player's desire to roleplay a character with ethics and the possibility for change. This climaxes in the "Heart of Darkness" area

of the game, where the player confronts former NPC "buddies"—who have been compromised by their greed—and is forced to commit suicide.

Some players of the game, including PopMatters critic Kirk Battle, reject the enforcement of this conclusion outright.[4] Other play styles are possible, of course: by the end of my own time playing the game, I had developed into something of a pacifist because I realized the futility of killing anyone except the targets I needed to in order to progress. By examining the dynamics of the game's play and analyzing the different projective identities players form in response to this highly artificial ruleset, we can come to understand exactly why some players reject the simulation and its message.

Weapon Decay

In *Far Cry 2*, weapons degenerate rapidly through use. Most weapons acquired from fallen enemies are already in a state of near-collapse. When the player restocks a weapon from a safehouse, the weapon begins in a state of full repair. As the weapon erodes, visual signs of its disrepair become apparent. Soon after, the weapon begins to malfunction: bullets will become lodged in the chamber, forcing the player to manually free them; rockets will completely misfire, spinning off in any direction except toward their intended target; a weapon in critical condition will simply break completely when the player attempts to shoot it.

On one hand, we can see how this rule strives toward some sort of material realism: in the real world, weapons degrade through use based on their construction, material base, and in response to environmental conditions. AK47s are known for their longevity and ability to be modified, while M14s were known to lose accuracy and jam in the marshes of Vietnam. On the other hand, we can see how the speed at which these

weapons become disused is patently absurd. Soldiers are trained to disassemble and clean their firearms every day, which prevents the kind of malfunction common in the game. Even without regular disassembly, a contemporary firearm will function for at least a week. Not so in *Far Cry 2*.

This persuasive thrust of this rule is to assert the impermanence of objects. It fulfills the design goal of forcing players into an almost constant-state of improvisational or reactionary play: the gun is about to break, so one has to scramble out of cover to pick at the corpse of a fallen enemy. The rule also frustrates a player's typical modus operandi of sticking to the one gun that best fits her play style.

Roadblock Respawns

Unlike in most first-person shooters, where an area will become clear of enemy presence once the player has slain them once, *Far Cry 2* continually respawns enemies at encampments along every major intersection of the game. This rule is common in most sandbox games, which *Far Cry 2* shares much in common with, but typically these enemies are also much easier to kill in games of the genre. In *Grand Theft Auto III*, enemy NPCs basically amass in large groups that can be eliminated in one clip; however, in *Far Cry 2* enemies take on different roles based on the surrounding terrain—some jump into jeeps and attempt to run over the player, one will climb into a turret emplacement, and a sniper will retreat to a rock to take pot shots from hundreds of meters away.[5] Clearing these outposts only becomes non-trivial late in the game.

The *Call of Duty* series of games uses this constant enemy respawning system (discussed in the chapter above), shutting off the stream of reinforcements only after the player crosses a trigger zone, in order to simulate the sheer numbers and flow of a large-

scale military encounter.[6] This adds a palpable aura of hostility to the virtual world of *Far Cry 2*, but the rhetoric goes deeper: there is no point in killing these men, because in this country there is no shortage of completely replaceable soldiers ready to die in return for food and shelter. The player gains no reward, outside perhaps a net gain in ammunition, from decimating these outposts. Even racing through a roadblock solves little, as snipers and chasing jeeps will dog the player relentlessly.

A secondary rule, rubber-banding, contributes to this. Rubber-banding is a rule used most commonly in arcade-style racing games (not racing simulations), such as *Mario Kart*, targeted toward casual or party play.[7] The name of the rule refers to a phenomenon wherein the racer in first place has a cap placed on her speed, while the racers at the end of the pack have a higher percentage of receiving the most potent power-ups. In many shooting games, rubber-banding doesn't occur; the player can avoid many encounters in a *Halo* game by speeding away in a Ghost.[8] But in *Far Cry 2,* enemy vehicles will always catch up; therefore, a rule typically used for balancing a game or making it more "fun" here procedurally expresses the inescapability of violence.

Buddy Death

Far Cry 2 implements a robust cooperative AI system that both aids the player and opens up optional side-missions. The game randomly selects from one of six mercenaries to be the player's two "Best Buddies" in each of the game's two regions. Before the beginning of each mission, the current Best Buddy will radio the player and tell them how to "subvert" it. This adds an extra objective to the mission and rewards the player with more in-game currency and access to vehicles upon completion. If the player loses all of her health, a "Second Best Buddy" will arrive, guns blazing, to save her and

drag her back to a safehouse. This can only occur every once and awhile, as the 2nd buddy requires time to recharge.

At the end of each subverted mission, the Best Buddy is attacked at a remote location. If the player doesn't arrive in time to aid the buddy in combat, the buddy will be found incapacitated near a signal flare. The player can revive a buddy once, if she has an extra syringe on hand; the second time the player attempts such a revival, the buddy will die (either by overdose or by a player-administered bullet to the head). This strict rhetoric of "one chance," is one of the few examples of meaningful permanence in the game. It encourages an emotional connection between player and buddy that the designers later manipulate for narrative effect.

Malaria

The player arrives in Africa without quinine, a chemical that builds temporary resistance against malaria. This is actually the primary narrative conceit of the game: after driving into town, the player passes out only to wake up in bed being taken care of the enemy she was sent to dispatch by the United States government: The Jackal, an arms dealer contributing to the unrest in the region by playing both sides in the conflict. He spares the player's life for an unknown reason that is eventually revealed through the course of the game. In order to understand the artificiality of this conceit, it helps to know that quinine has been used to prevent and cure malaria since the mid-18th century.[9] This is the substance from which tonic water derives its name (it was held as a general cure-all for a long time), and it is widely available everywhere except certain parts of Africa.

At certain pre-scripted intervals, the player will begin to suffer from malaria. The screen turns yellow and distorts at the edges, making it more difficult to fight. If ignored

for too long, the disease will incapacitate the player and end the game. The only way to obtain quinine pills is to help the region's underground railroad in transporting passports for refugees. Thus, in order to continue fighting the player must periodically drop everything to do humanitarian work. Unfortunately, these missions always consist of driving to a house out in the wilderness, shooting two people, and bringing the package inside. This is the most underdeveloped and poorly justified system in the game, left in a curious limbo where it was obviously meant to feed into the narrative contract but ultimately fails on account of its implausibility.

Space

The same year that *Far Cry 2* came out, Capcom released *Resident Evil 5*.[10] The *Resident Evil* series is perhaps the most popular of the survival horror genre of games, typically taking place in suburban America and a kind of Gothic fantasy Western Europe. For *Resident Evil 5*, Capcom decided to move the game to "Africa" in order to explain where their zombifying disease originated. The resulting imagery of African zombies, derived from early Hollywood racist stereotypes, have been well covered by critics such as N'gai Croal of *Newsweek*:

> *They're all dangerous men, women and children. They all have to be killed. And given the history, given the not so distant post-colonial history, you would say to yourself, why would you uncritically put up those images?*[11]

There are Black zombies dragging White women into dark alleys to fill them with diseased tendrils; there are zombie alligators and zombie tribes of spear-toting gargantuans.

Both of these games attempt, in unequal measure, a post-colonial critique of the west's treatment of "Africa." *Resident Evil 5*, like the 2006 film *The Constant Gardener*, is about the exploitation of African peoples by pharmaceutical companies.[12] *Far Cry 2*, on the other hand, is about arms dealers, mercenaries, and foreign intelligence agencies fueling violence for profit. The former romanticizes African peoples as noble savages, while the latter implicates greedy local potentates in the spiraling violence. This difference in the depiction of NPCs is an aspect of mise-en-scene informing how the player interacts with the space: in *Resident Evil 5* one cautiously eradicates a fallen people infected by an outside force, while in *Far Cry 2* one brutally plays conflicting militias against each other.

Geopolitical Mise-en-scene

Despite the positive intentions of these games, they both come off as attempts to deal with guilt over the rest of the world's economic treatment of Africa. Both are problematic considering their form, content, authors, and target audiences, yet it appears that *Resident Evil* 5 alone drew criticism from African American critics. *The Economist*'s Brett McCaron (a white male) admitted that he couldn't continue playing *Far Cry 2 a*fter being tasked with destroying a stockade of antibiotics, yet he doesn't necessarily condemn the inclusion of the task. McCaron cites his own white guilt as the motivating factor for his mental block:

> *On the surface, it seems far less fraught than the shooting of natives in* Resident Evil 5. *Perhaps the issue here is that* Far Cry 2 *based its moral quagmire on regional problems that I feel culturally responsible for.*[13]

One isn't troubled by playing *Far Cry 2* because one is disgusted with its representation of Africa but because it inculcates a form of self-loathing. McCaron suggests that *Far Cry 2* commands more respect because of its emphasis on geographic and social realism.

Unlike the developers of *Resident Evil*, Ubisoft Montreal actually visited the continent and modeled *Far Cry 2* after a specific area in Kenya. Narrative designer Patrick Redding is transparent about how the team came to terms with its imbedded notions of "Africa":

> *... we'd been working on this game for a year and a half and we created this North American version of Africa, but it wasn't quite right. So we went to Kenya last year for two weeks, we slept in the middle of the savannah, we didn't do the lodge tour, we had a cook with us, we had a guide, we actually had a biologist with us who explained the wildlife and surroundings, and we were like "oh man, we got it so wrong!"*[14]

Although ringed by an arid desert, much of *Far Cry 2*'s wilderness contains ample foliage and wandering herds of herbivores. Rivers cut through the countryside, generating marshlands and ample opportunity to travel by boat. The second region even features a fairly large lake. Human settlements, on the other hand, appear as something of a blight. Major cities have a sinister, bombed-out and decrepit look to them, and enemy outposts are little more than sheet metal hovels. When the player is among nature, she is relatively safe in the cover of plants and hillocks; approaching human settlements, even those within no-fire zones, demands caution.

This research trip accounts for the environmental realism of the game, but Redding doesn't go into much detail about how the political aspect of the game was

researched: “We also saw a lot of the corruption, and that feeds into our game. It’s just a different planet, it’s such an eye opener.”[15] Redding mentions meeting a tribal leader, but what this observed corruption might have been is left to the imagination. Art director Alex Amancio explains how Ubisoft playtested their simulation: “We actually had journalists from South Africa see the game and comment that we actually captured Africa, which was our goal.”[16] Amancio doesn’t discern whether the journalists were shown the social aspects of the game, the game environments, or both. The rhetoric of these interviews mirrors the rhetoric of the game: the visual rhetoric of the mise-en-scene is made “realistic” in order to lend that realism to its social procedural rhetoric.

Figure 3.1 Map of Leboa-Sako

Funneling Structure

Far Cry 2 is composed of two wide, square-shaped, nonlinear spaces connected by a narrow, linear stretch of desert. Figure 3.1 above shows the "northern" region of Leboa-Sako, where the game begins.[17] A demilitarized zone, highlighted in yellow at the map's center, acts as the region's quest hub. Mike's Bar, directly below it, houses a weapon shop and a buddy hub. The square shape contributes to an organizational grid much more like an urban space than a rural one: roads loop back around at the edge of the map and intersect with each other, instead of meandering off alone. The player advances through loyalty missions offered by either one of the factions in the area in order to move through the desert into the south. After making this journey, the move is permanent.

The space lacks any kind of consistent structure that might mold how the player moves through it: there are narrow roads, wide intersections, and wider mission spaces. The presence of rock formations and small water bodies suggests two kinds of stealth-based play during missions, but this is often foiled as soon as the player is spotted by an NPC. *Far Cry 2*'s most distinct spatial rhetoric is that traveling by road is nearly unavoidable. One can try to drive off-road, but this will usually result in the capsizing of one's car. Then one has two options: try to run the rest of the way to the goal, or try to find another car. In this way, the environment funnels players into the thoroughfares where constant enemy threats await them. It forces players to trudge through a meaningless, unending war just to get from one place to another.

Play

Unlike many shooters, *Far Cry 2* allows the player to choose from a number of player characters—including females. It attempts to forge a close connection between the

player and her avatar through a minimization of non-diegetic HUD. When the player attempts to cure damage with a generic syringe item, the camera pivots to follow the avatar's field of vision and reveal a detailed healing process: the avatar will pat flames out of its clothes, remove shrapnel from bleeding wounds, or pop disconnected joints back into place. The same holds true of automobile repair: when a vehicle has taken enough damage to be smoking and stalling out, the player must pop the hood and tighten a radiator bolt to get moving again.

Even simply holding a weapon reveals more of the player's body than is common in the genre—*Far Cry 2* displays the entire forearm, as compared to *Halo 3*, where only the player character's gun is visible, or to *Left 4 Dead*, which only displays the avatar's hands. Players also see the hands of their avatars as they drive. This stands in stark contrast to earlier highly immersive, first person games such as *Half-Life 2*, in which the wheels of vehicles simply spin as if controlled through telekinesis. This realism also extends to the in-game map. In order to view their location in the game world, players must unfold a massive piece of paper and scan it without the ability to pause the game while doing so. It has a particularly powerful effect when the player attempts to drive and navigate at the same time, although cars do contain a tiny GPS.

Far Cry 2 is an intriguing perversion of a lesson from theorist Alexander Galloway, who argues convincingly that an emphasis on visual "realisticness" in games will soon give way to a social realism.[18] Much of the development of mainstream games so far has associated the real with visual fidelity. In order for games to become more human, they have to find way to model our lived experiences. Games do this through mechanics:

> *...games are an active medium that requires constant physical input by the player: action, doing, pressing buttons, controlling, and so on. Because of this, a realist game must be realist in doing, in action.*[19]

Galloway notes that what constitutes this kind of realism is entirely contextual based on the life of the player: a war game may be realistic for a child living in an actual warzone.[20] For the average, middle-class American gamer, he suggests that going to the bathroom and feeding Sims (in *The Sims*) is a model for realism.[21] But the way that action is controlled, as a god from above, seems divorced from the player's lived condition. Perhaps a better example comes from interstitial scenes in *Heavy Rain*, which allow players to brush the player characters' teeth, to dry their hair after a shower, and to feed themselves with a series of motion-controlled prompts.[22]

Far Cry 2, as a graphical powerhouse, combines the former emphasis on visual fidelity with the added complexity of these embodied actions that seem socially real. It's an aspect of play that serves the same purpose as mise-en-scene in most games—to convince players that both the visual aspects and the procedural aspects of the game represent the world accurately. Although a rule system cannot be ontologically "fake," there is the possibility of a large gap between the game's procedural system and the real world systems it attempts to capture. Pulling a bullet out of one's flesh in the middle of action seems more real than simply using a health kit to restore health, but it still ignores the debilitating pain and resulting blood loss of an injury. In a way, the genre into which *Far Cry 2* was built simply can't support the kind of social realism its designers aspire to.

Sandbox Play

Free play within the game involves a number of collection-type activities. Scattered across the map are a number of audio diaries recorded by the game's antagonist; these provide background information about the Jackal and his motivations. There are also suitcases filled with "conflict diamonds," the in-game currency, located through the world. When a player is driving, a tracker in the current vehicle will steadily emit more and more blips as one of these caches draws closer. There are six NPC buddies to be found, which must be rescued from captivity before they can aid the player. Finally, there are a number of safehouses that can be claimed by simply killing the two or three men guarding them. These provide a place for the player to rest, save her game, store weapons, and restock on ammunition and syrettes.

There are two basic types of missions: story and side. Story missions are offered by each of two factions within an area, but the player builds no identity through their association with either faction. All the missions of both factions must be completed to proceed through the game; this forces the fictive context of "playing both sides against each other." The added option to subvert each mission individually comes from the buddy system. While the subversion objective adds the danger of a buddy being killed and the added burden of extra time spent, the player is rewarded with extra conflict diamonds. One type of optional side mission, intercepted from cell phone towers and called "assassination," tasks the player with finding and dispatching one heavily-guarded NPC in a stationary location. These also reward conflict diamonds upon completion.

Conflict diamonds are spent in one place: the weapon store. The other kind of side mission, "hijack," provides no monetary reward; instead, each hijacking mission

completed adds three new weapons to the store. The player can also spend diamonds on storage crates or on upgrading purchased weapons, modifying their accuracy, ammunition store, or power. Hijacking missions always consist of destroying an armored convoy that drives around in a fix circle of roads. If the player fails to complete all the hijacking missions for a particular region, the weapons they would otherwise unlock become available in the next region. They still have to be purchased to become usable, but this prevents the player from becoming too weak on account of not completing enough side missions.

Plan/Respond

As previously explained, the rule of rapid weapon degradation in *Far Cry 2* acts against the player's ability to maintain control of a combat situation. It frustrates the ability to plan a single strategy and stick with it. The game compounds this deflating of the player's potency by explicitly providing a tool used to literally scope out any given situation. Before approaching an outpost, the player can choose to find high ground, pull out a pair of binoculars, and mark points of interest on the local map. This can be used to highlight ammo dumps, health stations, weapon emplacements, and sniper nests. The process gives the player a false impression that she knows how the battle will play out, perhaps based on assumptions drawn from experiences in games with less complex NPC intelligence.

In general, games attempt to increase difficulty along with player skill. This is the essence of Noah Falstein's modification of the famous Csikszentmihalyi "flow" chart: an alternation between moments that are a bit too hard or a bit too easy that account for a correlated raise in difficulty and skill.[23] Yet, as *Far Cry 2* progresses, the expressive

power of its ruleset begins to fade. The game will automatically unlock all weapons a player misses within one region when she moves to the next. As the player gains more weapons to choose from, and as she upgrades those weapons and gains extra storage inside safehouses to store them, the spontaneity caused by weapon degradation begins to fade.

Just as the player begins to truly feel in complete control of the game, narrative logic takes the reigns from procedural rhetoric. The player is forced through a prison scene where weapons are taken away. Buddies turn on the player. The Jackal explains that suicide is the only way to end the game's cycle of violence.

Your Kind of Mercenary

What is the projective identity of a *Far Cry 2* player? In general, there is a decision as to how ruthless one should be and how one connects with one's buddies. Some core missions require the interrogation of minor militia leaders. Although the player isn't ordered to execute them to complete the task, the general aura of hostility makes it seem like perhaps an execution is necessary. The same is true of interaction with buddies: one either decides to trust one's buddy, and be thankful for the backup they provide, or to maintain distance because of possible ulterior motives. Players may also choose to continue to eliminate every roadblock they come across, which becomes easier as the game progresses, or they might bypass them completely by using public transportation or driving off-road.

These conflicting identities perhaps are the key determinant of how the player reacts to the game's ending. If the player maintained optimism, trust, and clemency throughout the experience, she may be unwilling to accept the idea that her player

character must die in order to ensure peace. A player who indulged in the calculated violence encouraged by the designers may be more willing to accept that her player character represents a part of her psyche that would best be buried at the end of the play experience. Or is it the other way around? Might the ruthless player be more likely to congratulate her ability to master the game and thus reject its conclusion, while the pacifist will be willing to accept suicide as the peaceful way out? This lack of certainty suggests a further distinction: some players will consciously accept the designer's ruleset and rhetoric over that generated by their own rules of behavior and identity.

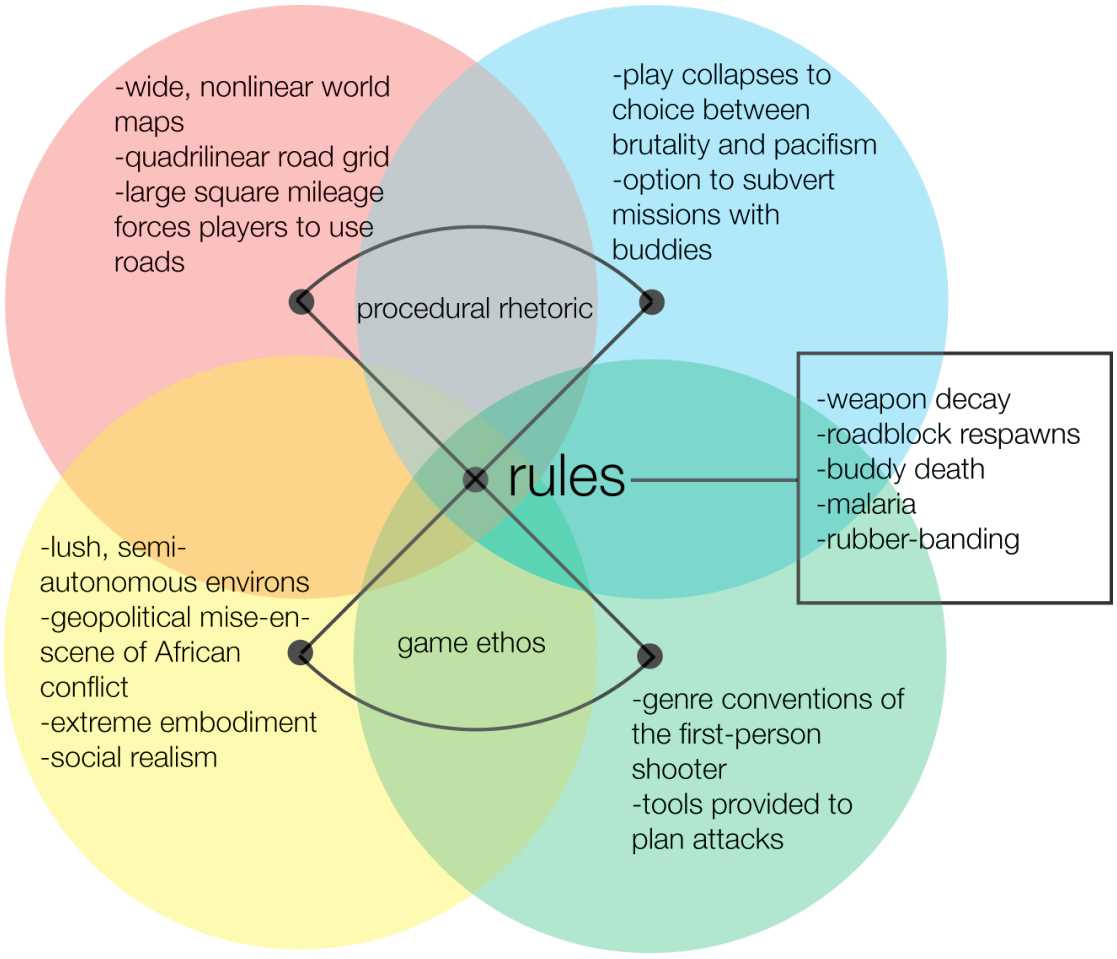

Figure 3.2 *Far Cry 2* Concept Map

Conclusion

In Figure 3.2 above, I've filled out my concept map model with salient features from my critique of *Far Cry 2*. The rules listed in the block to the right are those that I think to be important for a procedural rhetorical judgment of the game. Far Cry 2 funnels players into conflicts that can never truly be won. Early on in the game, features such as weapon degradation and roadblock respawns frustrate a player's desire for mastery over the gamespace. The continuing frustration of goal accomplishment serves to prime the player for the climactic realization that her own development as a soldier feeds into a cycle of violence that can only end with the complete eradication of all combatants. The immersive and embodying qualities of the game's mise-en-scene attempt to sell the game's geopolitical model to the player as socially realistic.

Unfortunately, the rubber-banding of weapon unlocks and the ability to avoid conflicts altogether once the rhetoric has been recognized diminishes the persuasive goals of the designers. The free play encouraged by the game's wide, nonlinear space and options to subvert core missions to play factions against each other cue players to expect some agency in how the game will end. Whether or not players accept the ending depends heavily on the projective identities they've developed through play.

Most intriguing is the possibility that Hocking, who coined the term "ludonarrative dissonance" in a critique of *BioShock*, may be using this dissonance purposefully as a meaning-making device.[24] Ludonarrative dissonance is an extension of the notion of a ludic contract, that a game asks players to abide by its rules and returns the favor by being internally consistent. When the narrative of a game runs counter to the ludic contract, dissonance is created: in *Far Cry 2* we have a game that grants the player

martial skill only to eventually tell her that this power is evil. This internal contradiction may be the only way to express the utter incommunicability of the problem in Africa, and the resulting confusion inculcated in players may thus be seen as a desired effect.

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[23] Noah Falstein, "Understanding Fun—The Theory of Natural Funativity," in *Introduction to Game Development*, ed. Steve Rabin (Boston: Charles River Media, 2005), 71-98.

[24] Clint Hocking, "Ludonarrative Dissonance in BioShock: The problem of what the game is about," in *Well Played 1.0: Video Games, Value and Meaning*, ed. Drew Davidson (Pittsburgh: ETC Press, 2009), 243-250.

CHAPTER 4

SIMULATING DIVINITY

The Elder Scrolls III: Morrowind is a single-player, western roleplaying game about becoming a god (or goddess). It serves the ideal example of player-heavy rhetoric. It features a first-person camera, an extensive character customization structure, and open exploration. The experience is largely free from explicit goals, though there is a central plot to follow if the player desires. Players begin as prisoners arriving by boat to the island of Vvardenfelll. After choosing their class, race, and other features at a customs office, players are given a nondescript package and the name of a contact in a nearby city. If the trail provided by the package is followed, it leads the player on a quest to slay the mysterious deity Dagoth Ur. Morrowind is a game that forces beginning players into a highly constrained, human package before giving them the tools they need to reach toward the divine.

Rules

Morrowind was one of the earliest games wherein the player could go anywhere, pick up any small object she desired, and kill any NPC she wished to. Players are only penalized for committing minor crimes if they are observed by an NPC. Entering a store or home, the player can take anything she wishes so long as the owner cannot see her. These objects are marked with a red hand in the inventory screen, but this only affects play if the player is apprehended by an officer for another reason or attempts to sell that object to its original owner.

The verbal rhetoric of "go anywhere, do anything" espoused by fans of the *Grand Theft Auto* series has been rightly called out by Bogost as not being backed up in procedural rhetoric: the player can do anything she likes, so long as what she likes to do is steal cars, shoot people, or consciously avoid doing either.[1] *Morrowind* has a similarly violent bent, but it does afford significantly more nuanced action: players can build a stronghold that can then be decorated. Supplementing the ability to pick up any object in the game, useful for merchants and thieves, is the ability to manipulate any of those objects in space (to a limited degree): if one likes a flower arrangement in the queen's private quarters, one can simply take it arrange it on one's own fireplace. Many missions can be solved non-violently through stealth, thievery, or persuasion.

Table 4.1 *Morrowind*'s Racial Stats

Attributes	Altmer (High Elf)		Argonian		Bosmer (Wood Elf)		Breton		Dunmer (Dark Elf)		Imperial (Cyrodiil)		Khajiit		Nord		Orc (Orsimer)		Redguard	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Agility	40	40	50	40	50	50	30	30	40	40	30	30	50	50	30	30	35	35	40	40
Endurance	40	30	30	30	30	30	30	30	40	30	40	40	30	40	50	40	50	50	50	50
Intelligence	50	50	40	50	40	40	50	50	40	40	40	40	40	40	30	30	30	40	30	30
Luck	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Personality	40	40	30	30	40	40	40	40	30	40	50	50	40	40	30	30	30	25	30	40
Speed	30	40	50	40	50	50	30	40	50	50	40	30	40	40	40	40	30	30	40	40
Strength	30	30	40	40	30	30	40	30	40	40	40	40	40	30	50	50	45	45	50	40
Willpower	40	40	30	40	30	30	50	50	30	30	30	40	30	30	40	50	50	45	30	30

Although *Morrowind* is most notable for the lack of influence from rules, they do factor into the experience in one key way: attribute and skill development. From the beginning of the game, the player's choice of race and class is heavily determined by rules. The way different races are coded can actually be considered a manifestation of

racism in code (Table 4.1).[2] One race, called the Redguard, are the only dark-skinned humanoid race in the game. They have the lowest intelligence of any race in the game, making them unsuited for using magic. Redguard also have the highest native Endurance and Strength attributes. Their racial ability, called "adrenaline rush," increases resistances to disease and further increases combat prowess.

All of this combines to represent, in rules, the common racist stereotype of people of color as physically superior and mentally inferior to people of fairer skin. Other patterns, such as females beginning with higher mental stats and lower physical stats than men across all races, further codify such stereotypes. It is thus a procedural rhetoric of gender and racial essentialism. The area of Tamriel where this game takes place is a Dunmer (dark elf) kingdom. Most of the denizens are dunmer, and unless the player chooses this race they are likely to be treated with open hostility from a solid majority of the world's denizens. Either having to cope with or dole out this institutional racism is a significant part of the typically rote choice of choosing between playing a "good" or "evil" character.

That said, *Morrowind* also expresses a sort of "equal opportunity through hard work" rhetoric in how skills and attributes develop over time. At the beginning of the game, players choose core skills that will advance faster than all others. Skills improve through use, and a player levels up after gaining ten points in their core skills. Each skill can go to 100 points, and there is no hard cap on how high a player can level. Attribute leveling is somewhat difficult to explain. Each core skill is associated with an attribute; for example: Acrobatics pairs with Agility. When the player levels up, she can choose to increase three attributes. For every 2 skill points gained in association with an attribute, it

gains a bonus for the leveling round. So if the player gains 8 points in Acrobatics to level up, Agility will have the maximum bonus of 4.

One thing of note is that the idea of "skill through use" is actually a design principle. A basic method of building player skill is providing progressive challenges that require the use of specific skulls, thus inculcating mastery. The designers of *Morrowind* make this real-world process of attaining literacy manifest within the game, thus disrupting their own ability to control exactly how the player chooses to develop. In a way, this is liberating, but it also leads to a number of absurd exploits. For instance, players can simply jump repeatedly in place to gain levels in Acrobatics. After a few hours of jumping instead of walking, the player will have a significantly higher Acrobatics level. But it doesn't necessarily mean that the player understands the value of jumping in the game. In many cases, it's likely that the rote process of repeating an action will incidentally lead to comprehension, but it cannot be assured.

There is also a way to maximize attribute gain by purposefully delaying leveling up until three attributes gain their maximum bonus, because leveling only occurs when the player character goes to sleep in a bed. The player also selects a set of secondary skills at the beginning of the game, which don't contribute to leveling up but develop faster than tertiary skills. There are perhaps 40 skills in all. What this all means is that, no matter the starting handicap on any player due to her choice of race or gender, it is eventually possible to maximize almost every skill and stat. Such careful progress is almost necessary: the game's adaptive difficulty tunes enemies to the player's level regardless of attributes and skills—a procedural argument about the game itself, that any of its content can be experienced in whatever order the player wishes.

It also means that careless players can sometimes find themselves in deep trouble because of poor planning. James Paul Gee refer to one of his virtual identities as his "child."[3] The projective identity can thus be understood as the player's plan for the future of her avatar, much the same way a parent attempts to mold actual children into Harvard or Citadel material. Quirks of the *Morrowind* leveling system lead to expressions of real-life truism about human development. Because the Endurance and Willpower attributes grant given amounts of health and mana on the event of leveling, players who fail to focus on them early will find their growth stunted later in the game. It is thus not unlikely for new players to the game to give up on their first playthrough after realizing how the system works, almost a form of ludic child abandonment.

Space

Like *Far Cry 2*, the world map of *Morrowind* is wide and nonlinear, though resource limitations will constrain the extent to which new players can safely wander into uncivilized regions. Vvardenfell is an island with a volcano in the middle and a series of barrier islets. Because the map is circular, the organization of locations is radial: a series of temples marking angular coordinates rings the coast, and settlements appear spaced according to these measurements rather than based on a quadrilinear grid. One signature of games by Bethesda is that every structure can be entered. Every few hundred yards in the game contains some ruin, cave, or village to explore.

Vvardenfell is divided into four distinct zones based on the associated "House" faction at their cores (Figure 4.1 below).[4] House Hlaalu, a faction of thieves, occupies sandy coasts and idyllic forests associated with English medieval fantasy. House Telvanni, the conclave of sorcerers, occupies a marsh-like reef to the northeast of the

map. They live in organic spires reminiscent of fungal stalks. House Redoran, an order known for its chivalry and piety, populate the red desert region known as the Ashlands. The difficulty of survival here suits their spartan way of life. House Dagoth, a non-joinable faction loyal to the game's main villain, occupy the ruins of a Dwarven civilization within the crater of the Red Mountain. The dwarven society was technologically advanced, so the area is steampunk-inspired.

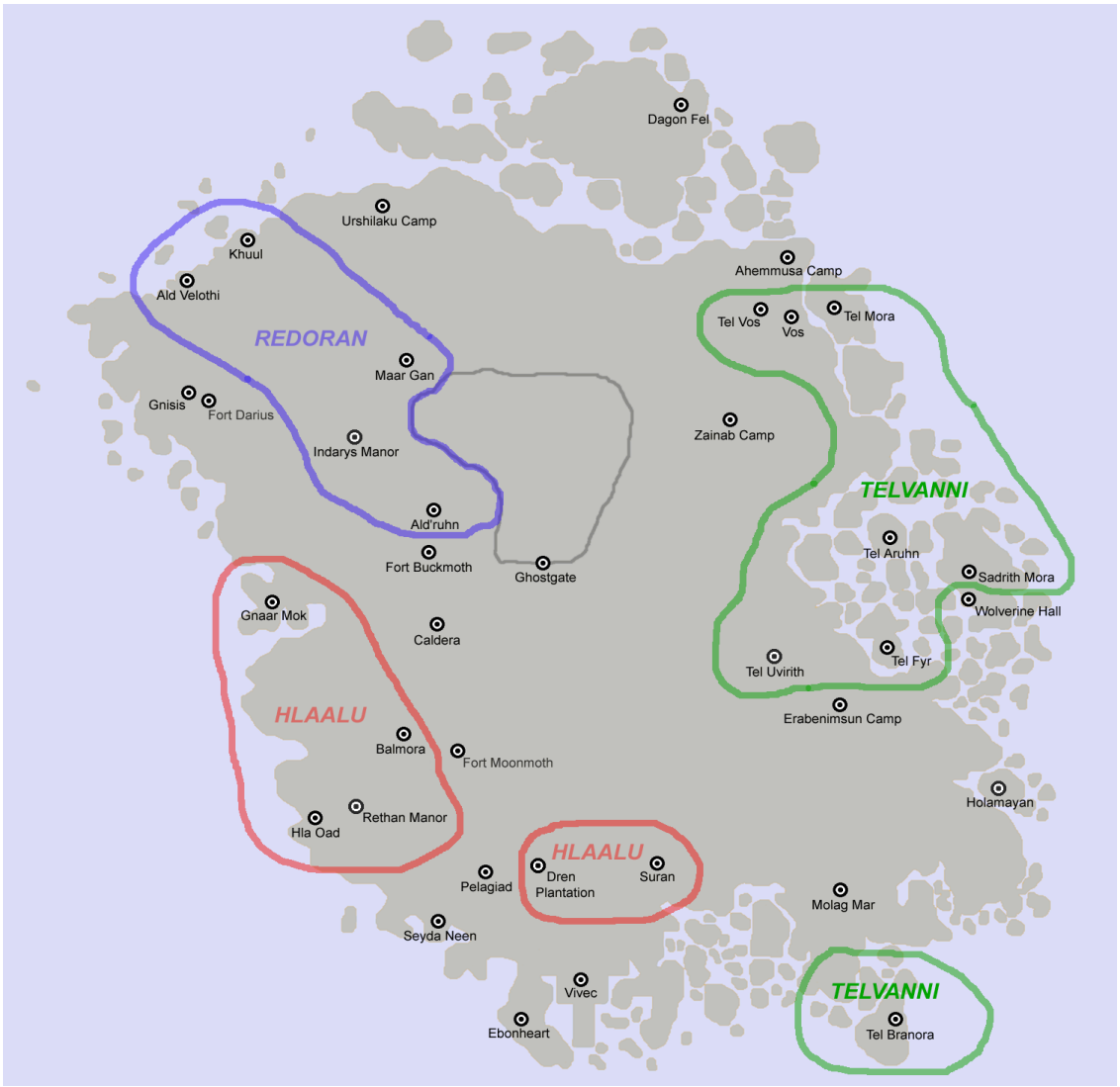

Figure 4.1 Vvardenfell by House Influence

This variety of mise-en-scene styles roughly informs the kind of play encouraged by the local factions; these areas are spatial allegories that help inform the character of each organization. Redoran deserts provide ample opportunity for equal combat against other humanoids, the flat spaces making stealth and complex footwork a non-issue. The cavern-filled forests near Hlaalu settlements entice thieves to comb their depths for treasure, the dense foliage providing ample opportunity to employ hit-and-run tactics on unsuspecting caravans. Finally, the Telvanni mage region presents the player with two common obstacles: bodies of water that must be crossed and towers with no ground-floor entrance. Swimming in heavy armor can be variably annoying or impossible. Two advanced spells become necessary to navigate the area properly, flying and waterwalking. Players untrained in the skills encouraged by each area are forced to improvise.

Unlike later open-world RPGs, this game does not allow instant quick-travel between places of interest; transportation is only provided between a few key cities, and at a cost dear to new adventurers. Even when the player wants to complete the core mission, she must do a great amount of hiking and exploring. This constraint on fast travel is actually a great boon to the space of *Morrowind*. The reason for this can be found in the *Urban Dynamics* of Jay Forrester. Forrester, writing during the 1960s, made an observation about the effects of interstate development on urban sprawl. He noticed that interstate highways facilitated a severe separation between commercial and residential zones, leading to the gradual depreciation of intermediary areas.[5] This principle holds true in game design: the loosening of limitations on fast travel in *Morrowind*'s sequel, *Oblivion*, led to a much less-developed world map. When the player

only has to pass through a location once (which fast travel allows), it means less time has to be spent adding detail to it. Worlds become larger, but they become monotonous.[6]

The most unique aspect of *Morrowind*'s space comes from the interaction between its level design and the way jumping is coded. One can compensate for the game's gravity against a steep slope simply by leaping quickly enough. Early in the game, any barrier that isn't completely vertical becomes simple to grapple. On top of this, Bethesda did something that hasn't really been attempted in any other CRPG since: they made a flying spell, and they designed most interior dungeons to account for it. Because the game provides no 3D interior maps of its spaces, it is entirely up to the player to find alternate nooks, platforms, and paths through vertical exploration.

Play

In particular, we're looking *Morrowind* because of all the other possible selections from the genre it seems least interested in goading the player through a core mission structure. The player can even kill key NPCs if she wants to, though the system will send them a brief message that the "threads of fate" have been cut short (meaning the core mission has been disrupted permanently). After the core mission is complete, the game continues on until the player decides to stop playing it. Even if the player avoids the core mission, the fact that they are the reincarnation of a god finds itself in every nook and cranny of the experience. That the game makes little commentary on the morality of a player's actions means that her actions alone determine what kind of god she becomes.

Players can join a number of organizations in the game world. Everyone can join the mage's and assassin's guilds. The thief's guild and fighter's guild are antagonistic, and although the player can advance through both she must eventually choose sides.

Players can select one of the three Dunmer great houses described above. They can also join both the Tribunal Temple (a local Dunmer spirituality) and the Imperial Cult (a mission to convert the Dunmer to the dominant foreign religion), although the two are understandably at odds with each other. Conversely, the player could join no associations and simply pick up quests from various denizens in passing. This large number of possible associations makes multiple playthroughs of the game enticing. Yet it's also possible to join almost all of them (barring one guild and two houses) within the same playthrough, which leads to a kind of modular play wherein the player develops as a scurrilous rogue for ten hours and a valiant knight for ten more after that.

The game also features a robust creation system that its sequel pared down significantly; players can craft any item they want given enough resources, from a helmet that allows the player to walk forever on water to a cloak that grants flight. Through an alchemy system, players can also craft custom potions from plants and gemstones gathered throughout the world. The ability to generate objects within a game is typically withheld from players by designers, because it's so difficult to account for the balancing issues that necessarily arise. Thus, there are a number of exploits accessible through cunning use of these crafting systems.

Ethical Play

In his *The Ethics of Computer Games*, Miguel Sicart celebrates a particular kind of game design:

> *An ethical game experience is one in which the player, a body-subject that exists and experiences the game system, can interact with that system as a moral agent; an experience that allows for the player's ethical behavior,*

interpretation, and, in the best possible case, contribution to the value system of the game experience.[7]

One would think that the top of his list of ethical game experiences would include RPGs such as *Fable* and BioWare games, with their "open" ethical systems of rewarding good and evil behavior with variants in story and unlockable skills.[8] In fact, he holds that these are failed experiments, both because they handle their ethical systems in non-optimal and often broken ways and because they don't leave the player any room for reflection.[9] *Fable*'s great crime is that it makes hours upon hours of evil acts reversible through the mechanic of donating to the Temple of Light. The "good" and "evil" decisions in these games are always obvious; this trend reduces to the absurd when such choices are highlighted in blue and red by BioWare's games.

The ability to make meaningful choices—Sicart invokes the term "ergodic" as used by Espen Aarseth—isn't a necessary condition for ethical game design. *Shadow of the Colossus*[10] and *Manhunt* are Sicart's two most common examples of desirable form.[11] Neither of these allow the player any action other than violence—they are "closed ethical systems"—but they twist these violent acts in ways that Sicart believes cues players to reflect ethically.[12] One of the necessary conditions for ethical play that both these games create is a conscious distinction between the player character as an actor with its own desires, values, and thoughts and the player as an external moral being. *Shadow of the Colossus* subverts the traditional power fantasy by robbing the player of agency after every simulated murder, while *Manhunt* provides narrative motivation for the grisly action while also letting the player choose her own level of brutality.[13] Ethical games can

ask (or demand) the player to participate in unethical action, so long as they provide adequate opportunity to reflect on those acts and the player/character divide.

It is easy to agree with Sicart's condemnation of blatant, simplistic ethical systems and his defense of videogames against culture critics who espouse intellectually bankrupt systems of virtue ethics in order to condemn the medium. It is also notable that he takes a procedural turn when he suggests that game form must be ethical, not game content. Yet one does not necessarily have to arrive at the same conclusion that he does: a game where only violent acts can be committed simply aren't ethically compelling to some. And this is one of the weaknesses of Sicart's approach: he explains why the systems in *Fable* are ham-fisted, yet he celebrates the equally ham-fisted *Shadow of the Colossus—a game that repeatedly shows its protagonist assaulted by black tendrils that gradually turn him into a demon.* Sicart assumes his own taste as an ideal player.

In Gee's terms, the ethical work of a player is the effort to forge and maintain a projective identity. *Morrowind* is an ideal ethical game under Sicart's rubric, because it combines the strengths of open and closed ethical systems. An "infamy" system is built into the game. It's a weak form of systemic ethics that tallies "evil" actions within the game world and influences, at various stages, the way that righteous NPCs react to the player character. Unlike *Fable*, *Morrowind* doesn't tell the player when her infamy rating has increased; it doesn't tell the player how much each different type of action contributes to infamy; it doesn't clearly mark NPCs as "good" or "evil," so it's difficult to tell whether someone dislikes you because of infamy or because of, say, your race; and finally, there's no way to reduce the infamy rating.

The most important difference though is the context in which this open ethical system exists. In *Fable*, there are no factions to identify with except the patently ridiculous Temples of Light and Darkness. A *Fable* player is either a hero or a bastard "just because," and deciding to be evil in fact conflicts with many aspects of the game world. A player of *Morrowind* decides what factions to join. None of these are truly good or evil; even the Thief's Guild has a code of "honor among thieves" and distinguishes itself from a thuggish, ethnic dark elf mafia. The Fighter's Guild orders the vaguely justified slaughter of NPC populations, and the Assassin's Guild is a state-sanctioned religious order. There are often different ways to accomplish major tasks; for example, even if a well-guard baron holds a ring that one must acquire, it's possible to take it off of him without killing him.

The network of factions is a living, breathing system. Nearly every denizen on the island of Vvardenfell is associated with at least one of them, and there is an interconnected system of respect between them; infamy is thus not the only numerical value affecting how NPCs initially perceive the player character. If all else fails, the player might accidentally stumble upon the vampire meta-game hidden within the game, a complete society of night-dwellers only hinted at within in-game tomes and scrolls. The game makes no judgment upon the player's actions, except to recognize that NPCs possess a competing set of values through which they perceive the player character.

Fable simply isn't a compelling gameworld, and it's a *simulacrum* of morality and culture that often borders on parody; *Morrowind* is a *simulation* of culture, neither truly closed or open as an ethical system. If a faction asks the player to commit an act that goes against her character's value system, it is not as if this prevents the player from

"moving forward" in the game. There is no forward or backward; there is nothing either good or bad, but the player's projective identity makes it so.

Counterplay?

The large game world, lack of stringent goal structures, and expansive quality of its player development affordances make *Morrowind* fertile ground for exploitation—the act of finding loopholes in game rules and structures that allow them to be played in ways unexpected by the designer. Sicart doesn't categorize exploiting as cheating,[14] yet many game developers hold that its is—at least in cases where it affects multiplayer games.[15] The only person affected by exploitation in singleplayer games is the player who exploits. Mia Consalvo explains the mindset of an exploiter:

> *They tend to see themselves as elite gamers who have already surpassed the normal challenges offered by a game and so turn to gaming the game itself for exploits. In keeping with that approach, it would make sense for such players to express disdain for lesser-skilled players who attempt the same hacks.*[16]

And *Morrowind*, a game that makes the player character a god capable of flying and crafting unique in-game objects, seems almost designed around the idea that the most clever exploiter wins.

The core mission of the *Morrowind*, something lasting roughly thirty hours, can actually be beaten within a few minutes of starting. Designers placed a scroll granting thousands of points to Acrobatics near the game's first village, a warning to players against always trusting magical objects: when players reach the peak of their spectacular jump, their Acrobatics boost vanishes and the resulting fall kills them. Yet quaffing a

cheap “feather” potion at the instant before landing will save one from this fate. It took speedrunners only a few hours to figure out how to use the three gag scrolls provided to fling themselves across the world map to shrines holding magical weapons needed to kill the game’s primary antagonist, enter his lair, and dispatch him.

Less spectacular possibilities abound. For instance, the crafting system can be completely broken simply by crafting an intelligence potion, drinking it, and repeating the process. The quality of a potion is largely determined by the intelligence attribute of the player. Because there is no hard cap on the beneficial effects of potions to attributes, a positive feedback loop results in an exponential increase in intelligence. Through this process, the player can become gloriously rich and omnipotent within an hour. There are even some mundane exploits that players might not even realize they’re engaging in: for example, if a player chooses Acrobatics as a primary skill, all she has to do is jump constantly to rapidly gain levels.

Because this game is riddled with holes, it inspired one of the most vibrant modding communities of any CRPGs to date. Many amateur designers coded “fixes” to the most obvious of the game’s exploits, such as the ability to delay sleep to min-max or level rapidly by choosing Acrobatics. The general problem with the game’s skill development is that there is no rule of diminishing returns, making it relatively simple to patch a workaround. Players concerned with the questionable gender and race biases of the game equalized the beginning stats. Story-based mods also abound. Relationships aren’t possible in the original build of the game, so some designers focused solely on scripting NPCs to allow friendship and even romance.[17] Some felt like the race choices

offered by Bethesda were restrictive, so they used models and textures from enemy NPCs to create new playable races.[18]

Consalvo asks an important question relating the idea of exploiting back to Gee: "is cheating an activity or an identity?" Gee explains that games produce a "psychosocial moratorium," or conscious reduction in consequences within the context of play, which makes them ideal learning spaces.[19] In her own research, Consalvo found that players were able to separate their cheating in-game from who they are outside the game.[20] Players of *Morrowind* who realize an exploit will often set aside a save point before committing the act, then they move forward to test the waters of corruption (as it were). This practice essentially constructs multiple identities that the player can return to or abandon at will. Exploiting is an iterative process, each act "[performing] the resulting avatar identity as well as [shaping] a player's attitude toward a game and his or her own understand of what it means to play."[21]

Conclusion

In Figure 4.2 below, I've filled out the concept map model with key features from *Morrowind*. Players begin their quest in Vvardenfell much like they do in any other fantasy CRPG: by selecting a class roughly coinciding with the warrior, rogue, and mage archetypes. Their race and gender selections place essential values on the starting values of player characters, but these values become highly malleable once skills develop through use. The rhetoric of "going anywhere and doing anything" on Morrowind's wide, nonlinear world map is complimented by the idea that "doing anything" will in turn develop the player character into a demigod-like being. This is a shortcut to player literacy development that can have profound consequences on the play experience.

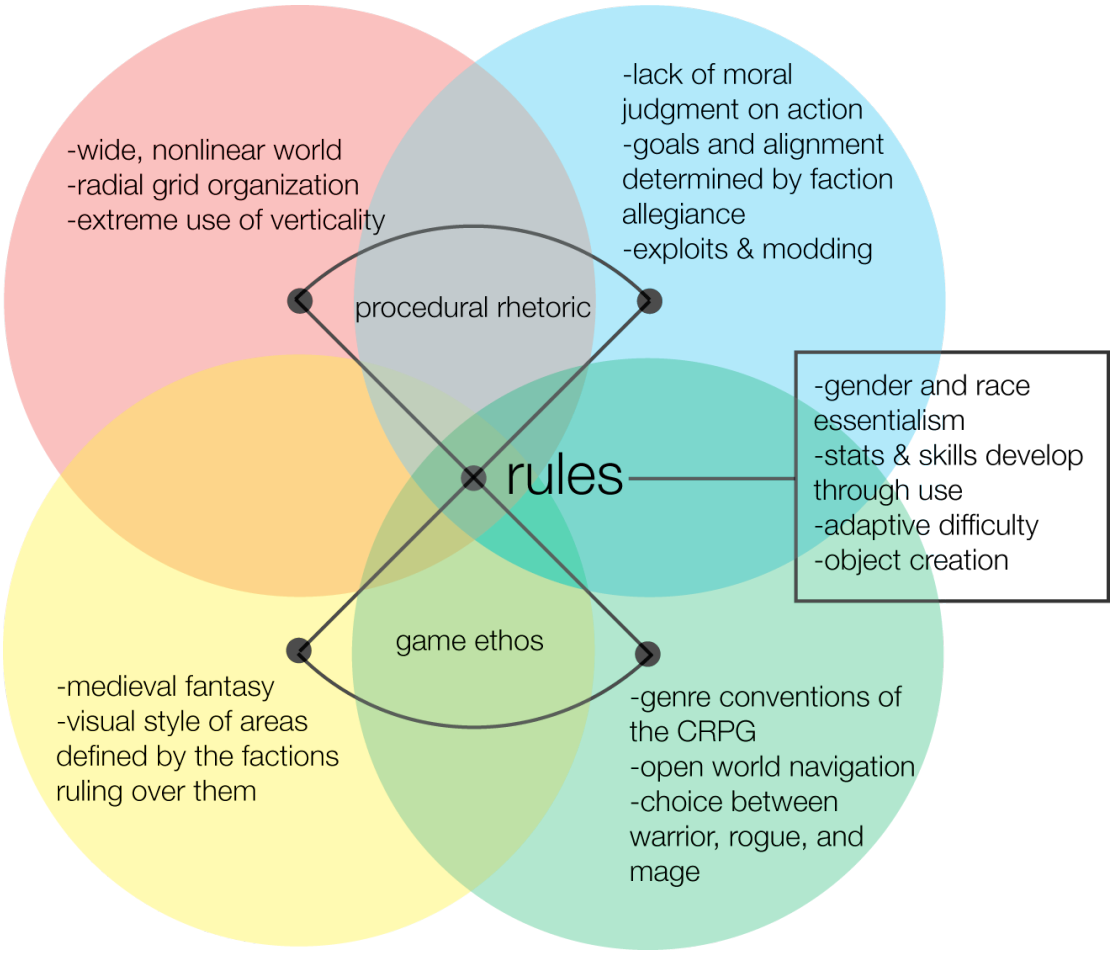

Figure 4.2 *Morrowind* Concept Map

Morrowind makes little explicit commentary on the morality of the player's actions, choosing instead to allow a relativism of moral alignment determined by whatever factions the player ends up joining. Each major section of the world provides cues to the player on how to act, typically favoring certain skillsets over others based on the enemies and spatial structures present. A common thread through any player's spatial exploration of is that the power of acrobatically-impossible jumping and grappling eventually gives way to the power of flight. The level design of many cities and caverns encourages vertical exploration to a degree that most games wouldn't dare.

Players can interact with most every in-game object and non-player-character creatively or destructively. The ability to create potions and enchanted items within the game is complimented by a robust modding community on a meta-level. *Morrowind* is different from most games of its kind, because it tacitly encourages exploitation as a primary *modus operandi*. Conversely, it inculcates in some the identity of "player-designer" and the desire to mod the game to "fix" it. It is a broken game that glories in its own ineptitude. Everything in its world is malleable. One can ignore the game's fiction entirely; playing with rules is, in a videogame, exactly what being a god means.

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[1] Bogost, *Unit Operations*, 157.

[2] Image source: http://www.uesp.net/wiki/Morrowind:Races, modified.

[3] Gee 49.

[4] Picture credit: Mirko33, *Wikipedia* user, public domain, http://en.wikipedia.org/wiki/File:Vvardenfelll04.png.

[5] Jay Forrester, *Urban Dynamics* (Portland: Productivity Press, 1969), 127.

[6] I first made this argument in: Simon Ferrari, "You Got Sim in My Hack & Slash!," *Chungking Espresso*, February 24, 2009, http://simonferrari.com/2009/02/24/you-got-sim-in-my-hack-slash/.

[7] Sicart, *The Ethics of Computer Games*, 145.

[8] Lionhead Studios, *Fable* (Microsoft Game Studios, 2004).

[9] Sicart, *The Ethics of Computer Games*, 211.

[10] Team Ico, *Shadow of the Colossus* (Sony Computer Entertainment, 2005).

[11] Rockstar North, *Manhunt* (Rockstar Games, 2003).

[12] Sicart, *The Ethics of Computer Games*, 215.

[13] Sicart, *The Ethics of Computer Games*, 216.

[14] Sicart, *The Ethics of Computer Games*, 135.

[15] Consalvo 115.

[16] Consalvo 102.

[17] For example: Kateri, "Julan, Ashlander Companion," http://lovkullen.net/Emma/Kateri.htm.

[18] For example: redwoodtreesprite, "Dremora PC Mod," http://www.zyworld.com/redwoodtreesprite/DremoraNPC.htm.

[19] Gee 59.

[20] Consalvo 127.

[21] Consalvo 128.

CHAPTER 5

THE MUTUAL RELIANCE GAME

Left 4 Dead is a cooperative, multiplayer first-person shooter about mutual reliance between four strangers during a zombie apocalypse.[1] It serves as an ideal example of a space-heavy rhetoric complimented by a supporting set of mechanics that encourage players to act cooperatively. What makes *Left 4 Dead* compelling is that its spatial rhetoric contradicts itself. The visual rhetoric of its mise-en-scene urges players to pay attention to each other and remain close through the redundancy of HUD and diegetic cues. The formal organization of its space, on the other hand, attempts at every moment to pull players apart; it even *varies* how it exerts this uniform influence by switching between exterior and interior configurations. Teamwork is the point of the game, but it nevertheless requires non-trivial effort and concerted focus on communal wellbeing.

Left 4 Dead features four "campaigns" each comprised of 5 sections. The four spaces traversed are urban/hospital, small town/rural, an airport, and forests/farm. Although the course through each section of a level is roughly linear, around 3/4 of the time players have the option of pursuing parallel multilinear courses along that line; for instance, in the opening chapter of the city/hospital campaign "No Mercy," players have the option to navigate the dangerous streets of the city or cut a number of possible paths through back alleys and office buildings. Because the navigable areas are so constrained, the level of detail put into each space is quite high--each tacitly suggest how the player should tackle it, because our mental mapping of it matches exactly with the common, everyday spaces they model.

The fictional skin of *Left 4 Dead* matches the reality of playing it exactly: the four characters are strangers drawn together by the need for survival, and the players (unless one explicitly teams with friends) are four strangers who only come to know each other through play. Certain mechanics, such as the fact that all but one of the Special Infected (enhanced enemies) are able to single-handedly incapacitate a player, mean that the smallest viable unit is two players. If a player lags behind or wanders off, she can be quickly overwhelmed with absolutely no hope to save herself. Weakened teammates move much slower than everyone else, making them easy prey for long-range Special Infected such as the Hunter and Smoker.

Rules

Left 4 Dead is mechanically simple; it only affords shooting, running, crouching, melee, item usage (picking up and throwing), and the ability to help incapacitated player characters onto their feet. Player characters move at a constant speed, unable to sprint. As a PC takes damage, this movement speed decreases by a significant percentage to simulate limping. The player is also able to crouch in order to increase weapon accuracy. Unlike in many contemporary shooters, players cannot aim down the iron sights of their weapons to improve aim. Melee attacks knock most enemies backward, disengaging their unique constricting abilities. Players can tap a bumper (or mapped keyboard button) to instantly turn 180 degrees around.

There is no inventory management in *Left 4 Dead*. Players can carry one main weapon with limited ammunition, a pistol with unlimited ammo, one first aid kit, one bottle of pain pills, and either a molotov cocktail or a pipe bomb. Weapons and ammunition are only available at a few places within a level, often sitting on a table in

plain sight. The selection of weapons available at any given stockpile is randomized. Main weapons include a submachine gun (rapid but inaccurate), a shotgun (slow but powerful at close range), an assault rifle (rapid and accurate at any distance), an auto-shotgun (quick and powerful at close range), and a hunting rifle (slow but extremely powerful and accurate at any range; the only weapon with a scope).

Pain pills temporarily increase a player's health, but this increase slowly depreciates over time. The power-up acts as something of a buffer, as it can be used when the player knows she will be taking unavoidable damage. The choice between whether to hold a molotov cocktail or pipe bomb depends on the space a player finds herself in and the most pressing threat. Molotov cocktails create a wall of flame that will slowly damage any enemy passing through it until it dies, making it useful against special Infected. Players can also accidentally set themselves or their team members aflame by using this item carelessly. A pipe bomb really only affects common Infected, but it kills large numbers of them instantly by drawing them toward itself and exploding.

When a player's health drops to zero, she becomes incapacitated and slowly bleeds out. Taking continued damage from enemies accelerates this bleeding process. Other players must help the incapacitated team member off the ground before this blood counter reaches zero, which restores health to a minimal amount that slowly counts down over time. Once a player's character has been incapacitated twice, her vision becomes black-and-white and a third incapacitation results in instant death. Using a health pack resets this incapacitation counter and restores full health. The beginning of every level contains four health packs, one for each player. Sometimes extra health packs will be

scattered in medicine cabinets and hidden niches throughout the level, but this is randomized.

Left 4 Dead contains 5 types of enemies: common Infected, Boomers, Smokers, Hunters, Witches, and Tanks. Common enemies can run quickly, climb anything, and amass into large groups called "hordes" that present a significant danger to players. They land constant, minor blows on the player at close range, which also serve to slow player movement. Boomers hide around corners because of their extreme fragility. They shoot bile at players, partially blinding them and drawing hordes of common Infected to their location; they expel this same bile on being killed. Smokers and Hunters are slightly more resilient than the previously-mentioned enemies. Smokers entangle players from afar with their tongues, and Hunters fling themselves through the air to tackle players; both temporarily rob players of control and slowly sap health.

Witches sit in one place and only attack the players if disturbed by noise, light, or nearby motion. Once disturbed, a Witch will run toward the offending player and instantly incapacitate her regardless of current health. Finally, Tanks appear infrequently throughout levels and during climaxes at the end of every campaign. Tanks have significantly more health than any other enemy, and they can crash through walls, throw slabs of concrete or other large objects at players, and incapacitate any player within two or three direct blows.

The game state of *Left 4 Dead* is partially controlled by an AI "Director." This program tracks the performance of players—including their accuracy, current health, and inventory—and attempts to steadily escalate the level of challenge by spawning enemies and items. This adaptive difficulty system, like all similar systems, is an attempt to

maintain a "flow" state in players, a mental state in which one is fully immersed in an experience due to feelings of honed focus toward achievable goals through the avoidance of anxiety and boredom.[2] As long as players make a conscious attempt to select the proper difficulty for their skill level *Left 4 Dead*, the game is never too hard or too easy: a lull or unexpected cache of health packs may be swiftly followed by an oncoming horde or Tank.

Space

There is no traditional narrative arc to *Left 4 Dead*. There are no cut scenes (except for an introductory cinematic), no text to read, and no goal other than survival. With each playthrough, the world in *Left 4 Dead* allows players to enact a new variation of an archetypal tale. Celia Pearce first explained this phenomenon of narrative architecture in games, through her experience designing theme park attractions:

> *Whether they know it or not all architects are also creating stories, and the extent to which a building is successful might ultimately be more a factor of the narrative content of the building than its actual architecture. Or perhaps in reality they are the same thing.*[3]

Each level draws from a trope of the survival horror genre, primarily that of zombie films of the seventies that returned to the popular consciousness in the mid-2000s. These levels thus constitute what Henry Jenkins calls "evocative" spaces, which "give concrete shape to our memories and imaginings of the [transmedial] storyworld."[4] The actions players decide to take, and thus the stories they weave for themselves, will be informed by actions they know to make sense contextually within the genre they are building. This is

another way that spaces act procedurally on players: by asking them to follow the rules of a genre through recognizable mise-en-scene.

HUD as Mise-en-scene

A HUD is an artificial construct placed "between" the visual representation of a game's action and the player. As is customary in tactical shooting games, the *Left 4 Dead* the HUD communicates information both about the player character about the status of one's teammates, their health and their inventory. This same information is also partially communicated diegetically, as avatars physically display their current inventory and begin to visibly stagger when injured. The redundancy of these cues helps the player quickly assess the team's combat viability and potential traveling speed. If a teammate begins to stagger or displays a red health bar in the HUD, the rest of the team knows who to defend in a firefight and how to pace themselves while moving. The image itself encourages cooperation.

As is customary for a horror game, *Left 4 Dead* features low-key lighting. Most of the time, players will view the world from behind a high-key flashlight. Player visibility can be affected in a number of ways: by foliage, by darkness, and by explicit obstructions such as walls. In order to facilitate team play, the game utilizes artificial backlighting. Surrounding teammates, objects, and some enemies are what appear to be haloes. These haloes deliver different information depending on their color. Blue haloes surround items and teammates blocked by level geometry. Orange haloes cue the player to a teammate who is somehow in danger: blinded by a Boomer, wrapped up by a Smoker, or pinned by a Hunter. Red haloes surround incapacitated players and Hunters in an active pinning position. These haloes only disappear if the player character is temporarily blinded by

Boomer bile. They command the player in ways similar to a stoplight; blue means everything is normal, yellow cautions the player, and red demands immediate attention.

Structure as Literacy

Left 4 Dead alternates narrow interior spaces with open exteriors. While moving through the interiors, players often have multiple distinct avenues to choose from. These multilinear spaces encourage exploration, but they also have the potential to feel like mazes that disorient and separate players. It is also difficult to see upcoming dangers when indoors, as special Infected have numerous ways to hide themselves around corners or behind objects until they are ready to strike. The exteriors, on the other hand, provide better visibility and a single general axis of motion. These spaces afford strafing—the ability to physically pan sideways around an obstruction or threat—but they typically funnel the player in a single ultimate destination. In these spaces, disorientation comes primarily from partial decreases in visibility due to foliage.

In order to understand various types of modular level design in *Left 4 Dead*, we will make use of a series of maps below. The blue line represents the most efficient pathway through the level. Red lines represent distractions from this optimal path. White highlights delineate accessibly space, and white lines signify obstructions (some of which can be entered or climbed upon). Yellow lines in the fourth map signify the "scatter" pattern needed to survive Tanks during the scene's finale. Yellow dots represent places to remain still during attacks from Hordes. One must understand a few things about the way the AI Director works in order to understand why experienced players would ever stray from the blue, optimal path.

First, items such as ammunition, explosives, pain pills, and med-packs can be scattered anywhere throughout the level. The Director decides which of these items to provide, then randomizes their location throughout the level. This selection and location process changes on each attempt at the level, meaning it cannot be memorized; therefore, the primary temptation to follow red lines is to look for these items. The major secondary cause of diversion are Witches. Passing next to a Witch usually ends in disaster, but they typically rest in places that can be wholly avoided by choosing a less optimal path. Our only purpose for even recognizing paths as non-optimal is that enemies never stop spawning in *Left 4 Dead* (except right before finales). The best way to minimize casualties—the implied goal of the game's design—is to move at a constant pace, as a group, along the shortest path possible.

Figure 5.1 "Blood Harvest" Intro

Figure 5.1 shows the first level of the "Blood Harvest" campaign, which takes place primarily outdoors.[5] Players begin at the bottom of the map. The white dots at the beginning of the stage represent dense forest. Movement through the first half of the map often proceeds slowly, as the group clusters together to eliminate straying common Infected that comes running out of the woods and onto the path. Boomers and Smokers hide among these trees, pulling players into the darkness or leading them astray through blindness. Midway through the level is a trailer, which sometimes contains medical supplies. Lingering here often triggers a Horde, exacerbated by Boomers that hide behind the trailer or off in the woods to the right. The final L-shaped sprint to the saferoom opens visibility but also threatens to pull the team apart as injured teammates lag behind. Play in this level is much more complex in Versus than it is in Campaign mode, because the foliage and surrounding ravines provide tactical opportunities for the Infected team.

This level is basically a "track"-type space in Nitsche's dichotomy.[6] This is one of the best maps for new players to run in order to learn basic mechanics. It's early in the campaign, so it's a straight, narrow line in an exterior setting designed primarily to set the mood and help a newly formed team build trust. It affords only optimal, unilinear movement. The one major distraction point (the trailer) is one of the clearest learning opportunities of players who don't understand the importance of constant motion. Even if the team becomes mired in a Horde onslaught, they will almost always have enough medical supplies to make it to safety. It is uncommon for Witches and Tanks to spawn in this level, but if they do the straight bath forward or backward provides ample opportunity for escape and defense. We can conclude from all of this that track-type spaces are the best for developing basic literacy and team dynamics.

Figure 5.2 “No Mercy” Intro

Figure 5.2 is from the “No Mercy” campaign, which is typically the first campaign played by new players and the most popular Versus mode map; therefore, it mixes interior and exterior spaces to form another kind of tutorial. Players begin on the roof of the southernmost building, and they work their way quickly to the ground floor. Following an alley, the team exits onto a street. A witch typically sits right around the corner from where the alley exits out; there are also cars that will summon a Horde if shot. Players choose here whether to proceed along the street itself or through the

building in the middle marked with red lines. Moving through the building will increase overall travel time; it holds a higher density of common Infected, but it also might contain health packs. Wrecked trucks litter the streets, creating little pockets of space to entice players away from the optimal path. At the end of the level, a staircase tempts players to linger just before the protection of the saferoom.

The brevity of this level makes it a relatively safe place to learn the tradeoffs between searching through cramped hallways for items and simply charging forward to the safehouse. Because there is only one mini maze-type space with clear entrances and exits, the consequences of slowing down are minor. The only significant danger of this level is the event of a Tank or Horde spawn in the street crowded with cars. Cars that *can* set off alarms are placed nearby the entrance to the safehouse, meaning that in the event of an accident it is fairly easy to beat a hasty retreat.

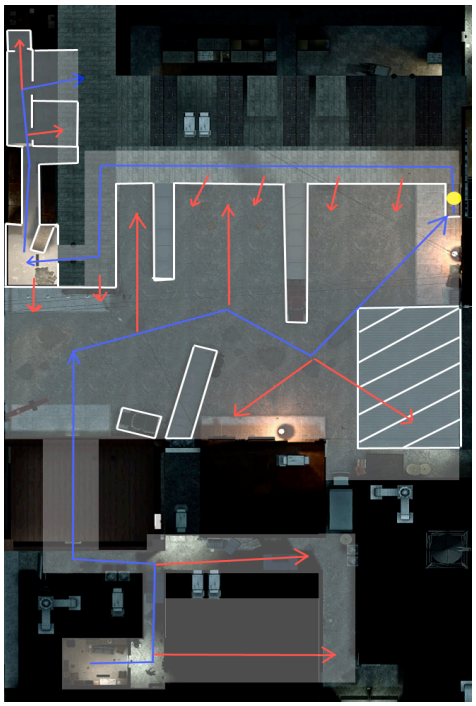

Figure 5.3 “No Mercy” Sewers

Figure 5.3 is the beginning of the third level in “No Mercy.” It begins in a series of warehouses connected by darkened alleyways. The way forward is obvious once one knows in which direction to move, but non-optimal paths through ancillary warehouses may contain health packs. Proceeding along the blue line, players enter a courtyard. At one end of the courtyard is a gas station that explodes when shot. Once again, trucks create pockets of space to distract players from the blue path. Right next to the gas station, at the yellow dot, is a forklift that slowly ascends to allow access to the rooftops. The forklift triggers a Horde, and players must run along the rooftops to get back inside at the top left of the map. Smokers, hiding in between the trucks, can easily pull players off the rooftops before their teammates know what’s happening. Soon after this scene, not pictured, is a figure eight-shaped sewer system.

This is a moderately difficult area due to the need to stop to raise the forklift and the added vertical element of running along the rooftop, where there is a hazard of being pulled downward by Special Infected. This forces the rest of the team to track backward to protect the fallen player, and it’s one of the most common causes of a wipe. Before coming to this level, players have already encountered a hard defense point where they must wait out a Horde in order to proceed, but the forklift is much more open and lacking in cover than previous defense points. The rooftop shows how much more complex a level gets when verticality comes into play. Players must simultaneously keep an eye on enemies descending from up and over a higher rooftop while keeping guard on the Special Infected lurking below. This area primes the team for No Mercy’s finale, which occurs in a two-story building with an open rooftop.

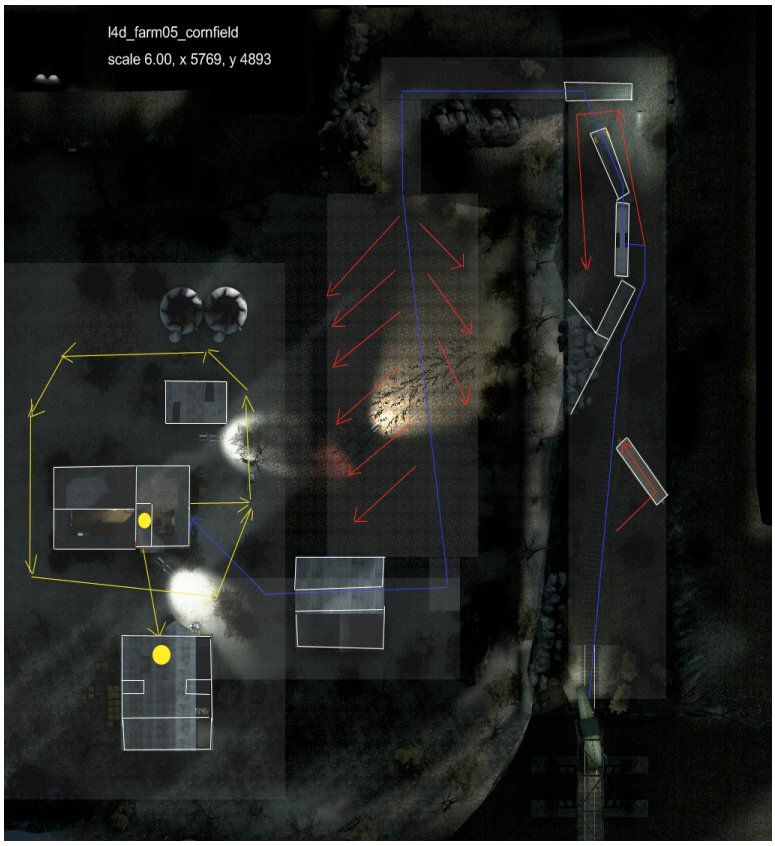

Figure 5.4 “Blood Harvest” Finale

Figure 5.4 is the final level of “Blood Harvest.” Players proceed down a narrow railroad track and climb on top of some train cars at the end. The mid-point of this section often contains a Tank, which requires players to backtrack or ascend the car to the right marked by a red line. Rounding the corner, players drop down into a cornfield to trigger a Horde. Players only have to travel in a straight line to exit the field, but the corn obscures vision almost completely. Considering this is the end of the campaign, multiple teammates may be injured and limping. Enemies can attack from every direction, further disorienting the player. Exiting the field, the team comes upon a house and adjoining barn that serve as a base for the finale. Players can hole up either in the house or in the barn, but they’ll probably have to run circles around the house during two Tank phases.

The house and its surrounding open field are the closest *Left 4 Dead* gets to the "arena"-type space in Nitsche's dichotomy.[7] A tacit assumption is that, by this point in the campaign, the team has learned to work together. The conceit of the finale, wherein the team holes up against overwhelming waves of enemies, takes much of the burden of providing challenge off of the level design—explaining the use of a somewhat nonlinear space. There is also much less clutter in the final arena, emphasizing tactical fluidity.

With the exception of the winding, track-type map of 5.1, it is simple to identify the discrete rectilinear shapes used to construct all of these levels. One can observe in most of them a sort of pulsing between interior and exterior, wide and narrow. Interior spaces tend to have multiple avenues of possible movement, but they also feature dead-ends. Exteriors generally only afford unidirectional motion, but all of these open spaces feature objects such as trees or cars used to distract the player from that single direction. When placed in sequence, these basic variations create a rhythm of attack and defense, motion and pause, and centripetal and centrifugal force upon the team's unity.

Play

For the purposes of this critique, I will assume that the members of an ideal *Left 4 Dead* team are strangers prior to the campaign. The reason for this is that it's too easy to attain complete cooperation and unified strategy when playing with friends. This isn't always the case in a Versus match (where everything becomes more complex and tensions run high even among friends), but an analysis of team-based competitive play doesn't fit within the scope of the current discussion. The model of four random players forming a team has the added contextual bonus of matching the game's fiction of four strangers coming together to fight for survival.

In the theory chapter, I explained how my method of breaking down a game by rules, space, and play constitutes a form of intersubjective judgment; it takes both objective assessments of how rule systems work and subjective play experiences into consideration. But philosophy isn't the only discipline that developed a concept of intersubjectivity. In her study of virtual worlds, Celia Pearce invokes the sociological notion of intersubjective practices, which are "constructed through interaction between people, rather than by the strict agency of individuals."[8] Pearce contextualizes these practices within games by showing how they contribute to an "intersubjective flow":

> *Intersubjective flow serves to accelerate a form of intimacy that is unique to play. In this context, a group of complete strangers can form a sense of group cohesion in a relatively short period of time.*[9]

Her argument is that, in the context of cooperative multiplayer game experiences, optimal psychological experiences are co-constructed by the team rather than by the individual alone. The skills of each player are not enough to meet the game's challenge in isolation, so team members push each other to develop both individual strengths and interpersonal organization.[10]

Four strangers come together to play a campaign of *Left 4 Dead*. They can search for matches based on difficulty level and campaign, so they theoretically know what they're getting into and whether their respective skill levels match the challenge. Often, at least one player won't have a microphone; she can steal hear commands and comments from team members who do have microphones, but she can only communicate by jumping around near points of interest. The best player in the group will probably remain silent, gauging the other players to see if they are worth her time. The teammate who

ends up as the de facto leader is the one with the biggest mouth. These players proceed through the first level. This level is almost always the easiest in the campaign, and it lets players test each other for cooperation and relative skill.

One teammate (usually the one without a microphone) will run off alone. Here is where the game becomes psychologically complex. The first ethical choice is: "do I leave my competent teammates behind to chase after that buffoon?" Unlike in most contemporary shooters, where health regains after finding safety and waiting a few moments, *Left 4 Dead*'s most precious commodity is health. Compounding the importance of this resource is the fact that players cannot defend themselves well against Special Infected. If one is constrained by a Hunter or Smoker, one has to wait for a teammate to come to the rescue. If this takes a long time, one has to then choose between using the one health pack provided at the beginning of the level or saving it for later and potentially slowing down the team. The second ethical choice is: "do I save this first aid for when I am in dire need, or do I give it to this complete stranger who most likely annoys me in innumerable ways?"

Moving through a space, the players who have health packs and explosives on hand will follow the optimal path unless something stops them. Players who don't have these resources will be wandering off down hallways and into bathrooms in an effort to try to find them. As long as players keep in groups of two, there's no significant danger. But a player on her own for more than a few minutes risks almost certain incapacitation at the hands of a Special Infected. One balances the risk of running into a Special against one's need for resources and the possibility that the closest non-optimal path will hold aid or just another enemy threat.

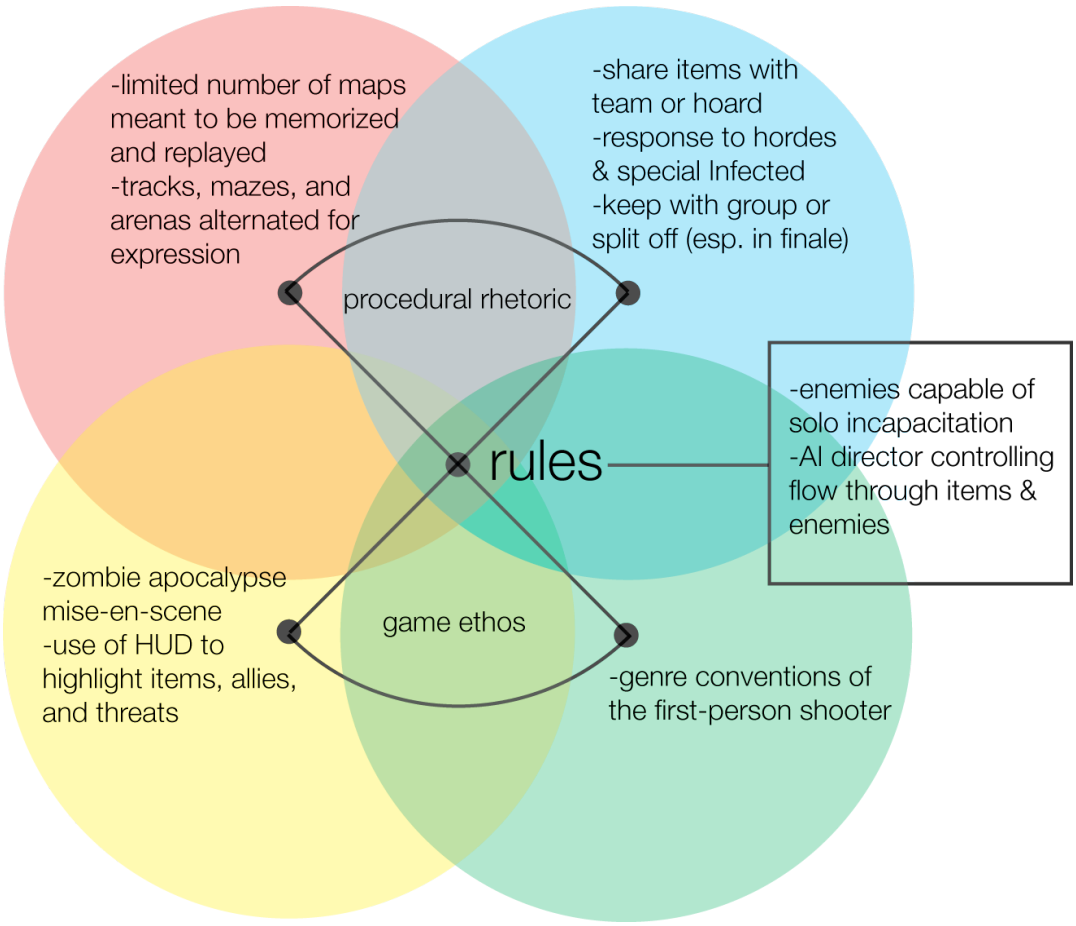

Figure 5.5 *Left 4 Dead* Concept Map

Conclusion

In Figure 5.5 above I've noted key features of *Left 4 Dead* to fill out my concept map. The first things players will notice when they begin to play are the trappings of the horror genre (specifically zombie films) and the colored haloes of the HUD that facilitate quick comprehension of aid and danger. At the beginning of each campaign, every player has an equal opportunity to stock up on weapons, ammunition, and medical supplies. Killing those first few pockets of enemies is thrilling, granting the typical pleasure of power we've come to expect from first-person shooters. The game turns to a reflective,

unique experience the first time a Special Infected ensnares somebody. It is in that moment, when players recognize that they are completely vulnerable on their own, that the game's rhetoric of mutual reliance becomes apparent.

The spaces of *Left 4 Dead* acts as a kind of structural constant. Each campaign is meant to be played and replayed, players gradually increasing the difficulty knob as they become fluent with the space and with the game's mechanics. Track-type areas and simple mazes provide ample learning opportunities and team-building exercises. The AI Director introduces an adaptive difficulty element to play, distributing enemies and items based on readings of player performance. When supplies run short, players have to make a decision to leave the optimal path through the level to search darkened corners for the items they need. Niches in the spatial design tempt individuals away from the group, and prolonged lingering will only increase the chances that a Tank or Horde will spawn.

Two choices—hoard or share, stay close or wander apart—make *Left 4 Dead* a compelling game. Players move forward in a punctuated rhythm, alternating modes of attack and defense depending on their current state and the enemies the Director throws at them. The game's four campaigns—a mere twenty individual stages in total—remain engaging no matter how many times one plays through them, despite the fact that the level layout never changes. Intersubjective flow between unique team compositions ensures that no two playthroughs will ever unfold in exactly the ame way. During the finales especially, when players must make flash decisions to save themselves by running to an escape vehicle or lingering for a moment to help another, tangible interpersonal tragedies emerge. It is entirely possible for an individual to survive a campaign in *Left 4 Dead* without truly "winning."

[1] Earlier version of this case study appears in: Simon Ferrari, "Left 4 Dead as Team-Based Rhythm Game," *Chungking Espresso*, March 12, 2009, http://simonferrari.com/2009/03/12/left-4-dead-as-team-based-rhythm-game/.

[2] Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience* (New York: Harper & Row, 1990).

[3] Celia Pearce, *the interactive book: a guide to the interactive revolution* (Indianapolis: Macmillan Technical Publishing, 1997), 26.

[4] Henry Jenkins, "Game Design as Narrative Architecture," in *First Person: New Media as Story, Performance, Game*, ed. Noah Wardrip-Fruin and Pat Harrigan (Cambridge: MIT Press, 2004), 123.

[5] Image source for all *Left 4 Dead* maps: http://l4dmapdb.com/, modified.

[6] Nitsche 173.

[7] Nitsche 183.

[8] Celia Pearce and Artemesia, *Communities of Play: Emergent Cultures in Multiplayer Games and Virtual Worlds* (Cambridge, Mass.: MIT Press, 2009), 51.

[9] Pearce, *Communities of Play*, 133.

[10] Pearce, *Communities of Play*, 132.

CHAPTER 6

CONCLUSION

We now have a basic pattern for understanding how play contributes to procedural rhetoric by beginning with an enunciation of rules, exploring how space instantiates those rules and contributes its own ordering influence, and finally detailing varying modes of play that construct distinct packages of meaning. Through the case studies, we've observed relevant ancillary considerations that arise from games that feature rhetorics strongly disposed toward one of the three axes of rules, space, or play. Although these early tests in applying my critical model may feel staccatoed at times, it will hopefully become progressively sharper through continued use and experimentation in the future.

Of course, much work is still to be done in order to make judgments of procedural rhetoric communicable at high fidelity. The future success of this enterprise will rely on the efforts of innumerable scholars, designers, and players to forge common vocabularies of design and play terminology, to explore the genealogy of rule systems and mechanics, and to create a game canon by which new works might be judged against historical standards. There is another significant reason to concern ourselves with explaining the rhetoric of game spaces and the procedural contribution of reflective play: so long as one assumes that the game design team—those who focus primarily on rulesets, mechanics, and balancing—wholly determines procedural rhetoric, the illusion of single authorship remains possible.

Auteur theory is the idea that one recognizes the work of an artist (a creator of beauty) by identifying stylistic consistency throughout her oeuvre. The notion arguably originated with Kant, who argued in *The Critique of Judgment* that,

> *... fine art cannot itself devise the rule by which it is to bring about its product. Since, however, a product can never be called art unless it is preceded by a rule, it must be nature in the subject (and through the attunement of his powers) that gives the rule to art; in other words, fine art is possible only as the product of genius.*[1]

Art for Kant is the production of rules outside those of nature, which we can best comprehend as style—the way a particular author or artist structures meaning. This notion re-emerged in the film criticism of Andrew Sarris,[2] and it has now picked up some scholarly and popular heft in game criticism.[3] An auteur theory of games would be helpful for research and historiographical purposes, but it cannot account for the aesthetic output of a contemporary design studio.

Playing any mainstream game for a few hours makes it clear that it is the confusion, contradiction, and noise in the system that makes a play session unique. Games trumpet their construction by multiple people:

> *Art becomes something social through its in-itself, and it becomes in-itself by means of the social force of production effective in it. The dialectic of the social and of the in-itself of the artwork is the dialectic of its own constitution to the extent that it tolerates nothing interior that does not externalize itself, nothing external that is not the bearer of the inward, the truth content.*[4]

Adorno's aesthetic theory, encapsulated in the quote above, strove to explain how art works in a world after World War II. Persuasive art had been used by the Nazis to drum up support for their cause, and the USSR had established a state art movement known as "socialist realism." Socialist realism denied the basic truths of life and labor in the Soviet system, instead showing workers a vision of the future that was promised if they remained true to the Party through its many stages of revolution. Its greatest offense, to Adorno, was that it contained blatantly social content rather than reflecting the conditions of its creation in its form. In terms of games, this means that Adorno would celebrate games that are confusing, chaotic, and obviously "gamey" rather than those that hide behind immersive narratives and artificially "complete" virtual worlds.

Future Extensions

Each case study introduced a number of other salient topics of discussion to the original formulation of my concept map, but many unanswered questions about the implications of procedural rhetoric on other aspects of gaming and game design remain. Areas ripe for exploration include procedural response pieces, machinima, virtual worlds, and the influence of difficulty on the reception of rhetoric.

Procedural Responses

In *Persuasive Games* Bogost makes a suggestion that one way to respond to extreme cases of simulation fever (the rejection of a game's modeling of a real world system) would be to create a procedural response piece: "such a wholesale revision might imply a different simulation entirely, one that would be outside the expressive domain of the artifact."[5] Such a work would take the procedural model of one game and attempt to craft a rule system that provides a counter-argument or alternate simulation. What do

procedural responses look like, and what different forms can they take? Do they primarily change rules, space, or player input?

Game responses exist already in an incunabular form, primarily coming in indie game development communities. The work of Flash developer Marcus Richert (or Raitendo) displays a wide range of procedural response types. He created *You Have to Defecate Upon King Bhumibol* both as a protest game against the imprisonment of author Harry Nicolaides in Thailand and as a parody of *You Have to Burn the Rope*, which was itself a parody of boss enemies with obvious weak points.[6] Both games last roughly 30 seconds; the player simply has to climb to the top of a few platforms and jump above the boss's head to win. Raitendo's version of *You Have To* changes mise-en-scene only, retaining almost the exact same ruleset, mechanics, and level design.

Another one of Richert's parody games, *Passage in 10 Seconds*, takes aim at Jason Rohrer's breakout success.[7] The original *Passage* lasts five minutes, presents a stunning visual metaphor for our hazy conception of the future and the past, models the give-and-take of marriage, and poignantly ends with the inevitable aging and death of the player character. *Passage in 10 Seconds*, as the name suggests, lasts ten seconds or roughly the time it takes the player to cross the screen. The player can pair up with a waiting mate and open two treasure chests (one empty, one filled with sparkles) before rapidly growing old and collapsing against with floor with a loud thud. The screen goes black, and a cartoon version of Charles Foster Kane declares, "Now, this is art." It's not simply *Passage* "in 10 Seconds," it's *Passage* "Without Exploration, Visual Metaphor, or Ingenuity." Whether it is supposed to be commentary on *Passage* itself or the game's hyperbolic critical reception is unclear.

Richert's *You Only Live Once* is a response to *Super Mario Bros*.[8] It's a fully-functional sidescrolling platformer about a man who goes to the castle of a giant, pink lizard to rescue his girlfriend. But there's one caveat: the player only has one life. Once the player has died, hitting the "continue" button plays a sequence of short videos. Even though there are a number of levels, all designed to be playable and fun, most players won't make it past the first few obstacles. On attempting to reload the game, they'll simply find the grave of the dead player character. By removing one rule, the ability to reload one's game after dying, Richert completely changes the rhetoric of the basic platformer. It crafts a meditation on death by clipping the wings of a procedural model about forward momentum, fluid acrobatics, exploration, and spatial literacy.

From looking at just one artist, we observe three different kind of response games: one of them is a visual response that simply re-skins a game for parodic effect; one is a kind of gag procedural response that makes its point by completely neutering the ruleset of another; and the last completely changes the meaning of a tried-and-true genre through the calculated omission of a single rule. It's safe to say that communities such as TIGSource, Kongregate, and Newgrounds are often neglected by game scholars, yet indie games are a natural place to look for examples of procedural responses. This is because the cost of experimentation for a Flash or artgame is relatively low. Also, when one thinks about the historical context of response pieces—between artists of different schools of thought struggling against each other for popular recognition and ideological dominance—it makes sense that indie developers would be interested in the practice.

Machinima

Another avenue of exploration is the analysis of *machinima* based on whether it reinforces or works against the procedural rhetoric of the gamespace within which it is created. Machinima are cinematic works performed and recorded within a game. Nitsche characterizes them as play memories, "indicators showing how players picked up certain evocative narrative elements provided by the game world and made sense of them within the game world."[9] They can be used to record memorable playthroughs or multiplayer matches, to parody the gameworlds in which they are filmed, to reenact events from the real world, or for any other imaginable use of a virtual camera and in-game assets. One procedural constraint on machinima production cited by Nitsche is the phenomenon of the "performing camera," the fact that to record in many games the player must use a rule- and body-bound avatar to record the moving picture in first person.[10] But there are also other ideological, rhetorical procedural influences on these works.

No Russian, a machinima recorded in *Modern Warfare 2* by Michael Barnes, reshoots the two most iconic sequences of the game from different angles and edits them together.[11] In a way, this simply regurgitates the game's rhetoric and narrative in a non-interactive form. It becomes slightly more interesting as an artistic work when one considers that the ludic scene from which the film draws its name, "No Russian," has been widely criticized for its linearity: the player has infiltrated a terrorist cell, and she must accompany the villains through an airport as they slaughter civilian and SWAT team alike. Players can choose whether to participate in the slaughter, but attempting to stop the terrorists will result in a failure condition. The question becomes: is the

machinima a glorification of this manipulative, heavy-handed game scene, or is it a commentary on how the scene's rule system renders it essentially non-interactive?

Paolo Pedercini's *In the desert of the real* directly confronts the dominant rhetoric of the game he records it within, *America's Army*.[12] *America's Army* is an army recruitment tool that takes the conventions of tactical, squad-based shooters and adds Army training programs, rank systems, and an enforcement of the U.S. military rules of engagement.[13] Pedercini uses the game engine to film a counter-propaganda piece. In first person camera, a lone sniper takes aim at an enemy combatant and fires. The screen fades to black, switches to a third person camera, and films the soldier as he leaves his rifle laying in the sand and wanders off into the desert. Intertitles cut the soldier's trek into segments; each bears a question from the post-traumatic stress disorder checklist.[14]

These two examples establish a simple binary opposition to begin working with: machinima that recapitulate procedural rhetoric and those that work against it. Machinima created using shooters seem by far the most common. Is this simply because they're the most popular genre of mainstream game? Is it because shooters typically showcase the robust, sometimes open-access game engines that are required to capture machinima well? Perhaps the answer is that the macho, jingoistic rhetoric of shooters is both the easiest to parody and the most obvious place to begin a critique. In any case, a proper study of procedural rhetoric's influence on machinima would need to extend past these introductory examples and into other genres and other modes of rhetorical response.

Virtual Worlds and MMOGs

Although we've examined micro-communities and multiplayer pick-up groups with *Left 4 Dead*, it wasn't within the scope of this project to analyze the procedural

rhetoric of a virtual world. Massively multiplayer games problematize clear understandings of procedural rhetoric. In T.L. Taylor's study of *Everquest Online*,[15] she questioned how much an online game *is* the labor of its players, a concept called productive play.[16] Koster picked up on the same current when he crafted the *Declaration of the Rights of Avatars*.[17] If, as these scholars and designers assert, players of online games are in fact co-designers, then we must ask how they contribute to or modify the game's original procedural rhetoric.

First is the deliberate creation of rule systems within single-shard online spaces in order to address what is seen as an imbalance in the original design. Julian Dibbell recounts one of the first such cases of this occurring in his *my tiny life*. Following a particularly brutal incidence of virtual rape, the denizens of *LambdaMOO* held a public meeting with the administrators of their world to discuss the justifications for "capital punishment" in-game (banishment and deletion of a player character).[18] Dibbell also recounts the way *Lambd*a's in-game ballot system worked, explaining how the game's democratic system operated and relied on support of the players.[19] *Achaea*, another MUD, allowed large contingencies of players to build a city with the cooperation of an administrator, elect citizens to leadership positions, and declare war on other cities.[20] Each city-state featured a player-written book of law located at the gate of the city and enforced by the citizenry.

Next would be emergent rule systems that develop different across multiple shards of the same online game. In a recent study, Taylor explored how cultural differences affect the social climate of *World of Warcraft* between North American and European servers, citing issues such as language barriers, nationalistic rivalry, and

racism.[21] There are procedural analogues of this though that doesn't require an analysis of international politics to understand. For instance, each shard of *World of Warcraft* has a different dominant method of rolling on loot, rewarding credit for raid participation, and creating pick-up groups. These varying social procedures change the feel of the game significantly, critically altering rulesets that influence play just as much as the hard-programmed combat rules and mechanics.

Finally, it stands to take a look at the act of grafting the rule set of one game onto the framework of another. This appears to be a combination of emergent and deliberate rule creation on the part of players. Celia Pearce explores an incredibly complex version of this phenomenon in her ethnographic study of the *Uru* diaspora,[22] but much smaller examples abound: in largely structureless virtual worlds such as *Second Life*,[23] combat and roleplaying meta-games of all kinds have been programmed by players.[24] In *Achaea*, players and administrators developed tournament games and games of chance—some modeled on real-world games, some entirely novel—as an alternative to combat-centric competitive play. Whenever such jury-rigged games are similar to real-world analog games, it raises ethical and design issues: what if core numerical values were tweaked in the code's black box or otherwise affected by the overriding rules of the base game's programming?

Difficulty

Bogost never mentions the influence of difficulty and player skill on procedural rhetoric. In many political games, these factors have little to do with grasping rhetoric, because the games are designed explicitly as vehicles for making a point. Forcing failure upon all players regardless of skill, what Bogost calls the "rhetoric of failure," is a

common device of these games.[25] This is not the case for mainstream games, which typically include either staged difficulty levels or adaptive difficulty in order to accommodate as many players and play types as possible. Increasing difficulty narrows the possibility space of a game, constraining expression and choice except in the outlying case of expert players. Decreasing difficulty opens up this space, allowing skilled players to do almost whatever they like.[26]

An unskilled player playing on Hard will not be able to grasp the rule system of a videogame, because she will rapidly reach a fail state. On the other hand, a skilled player playing on Easy will completely miss the constraints imposed by an expressive ruleset; for instance, *BioShock*'s choice between harvesting and saving little sisters means nothing if the player is skilled enough to reach the equalizing "benevolence compensation gift" without much effort.[27] In both of these cases, procedural rhetoric will be lost on the player.

That said, an unskilled player attempting a difficult game will, with enough tenacity, eventually become literate enough in the game to proceed. Once she reaches the proper level of competence, she will understand the ruleset of a game in a unique and comprehensive way. Recent research by Jesper Juul supports this claim. Juul tested 85 players; when he asked them to know how they knew that a game was too easy, 27% responded that "too easy" means "not having to rethink strategy." Juul concludes from this that,

> *if a game being too easy is experienced as the game being shallow and uninteresting, it means that the role of failure is much more than a contrast to winning—failure pushes the player into reconsidering strategy,*

and failure thereby subjectively adds content to the game. The game appears deeper when the player fails [...][28]

Although Juul is primarily interested in player skill development and emotional response to difficulty, I'd argue that this perception of depth extends to cognition and meaning-creation. One only has to look back as far as one of the most critically-acclaimed games of last year to see the truth of this.

Demon's Souls, a dungeon-crawling RPG, repeatedly exerts the type of punishment identified as the most severe by Juul—"setback punishment," having to replay part of the game and/or losing abilities.[29] Players of *Demon's Souls* take incredible amounts of "energy punishment" (health decrease) every time they are struck, even by the weakest enemies in the game.[30] Whenever the player character dies, it loses all the unspent experience points it had accrued and must begin again from the beginning of the level. Although the game is hardly novel in its mechanics—dodging, blocking, and planning are required to succeed, as in any other game of the hack-and-slash genre—this extreme setback punishment inspired "revelations" in many critics.

An EDGE Online staffer wrote that, "[t]hese punishment systems ensure that life has far greater value than in most games."[31] Brendan Main theorizes that the game's cryptic multiplayer component makes an argument about humanity in a digital age; the game records player deaths as ghosts conjured from blood spatters, "unknowable things, somehow less than ourselves—phantasms that drift in and out of sight."[32] Michael McWhertor of Kotaku explicitly conjures the procedural rhetoric of the game when he celebrates its "atypical universe-defining rules, designed to upset player expectations—there is no pause button, no conveniently placed save points, no forgiveness for reckless

abandon."[33] These writers perceive the game as expressing deep truths about the nature of violence, death, and learning.

On the other hand, consider this quote from a hardcore gaming forum: "People definitely do overstate how difficult the game is in order to make their own achievements sound more impressive."[34] The lack of a need to modify strategy prevents such players from receiving *Demon's Souls*' procedural rhetoric. Purposeful play thus creates a positive feedback loop between the player and the game, allowing the participatory construction of a unique procedural rhetoric. Reactive play, when the player either is challenged either too much (causing confusion) or too little (causing ennui), will inhibit this constructive process.

Finally, one consequence of raising difficulty has little to do with the player's ability to adapt. In games that include cooperative NPCs, raising difficulty often makes these agents completely useless. This is because raising the difficulty will increase the health and damage of enemy agents while ignoring that of the NPC buddies. Sometimes this only affects balancing issues, such as the perpetual complaints about bad AI getting itself killed in so-called "escort" (protection) missions. But every once and awhile, it completely changes the dynamic of a game to alter its procedural rhetoric. In *Halo: Combat Evolved*, one mission involves defending a tower with a squadron of friendly NPCs. On easy and normal difficulties, this segment of the game is about laughing with one's comrades while taking easy shots at hordes of helpless enemies below. On hard, these buddy NPCs die almost instantly; the scene becomes about the player surviving against all odds, scouring the bodies of dead friends for ammunition.

[1] Werner S. Pluhar, trans., *Critique of Judgment* of Immanuel Kant (Indianapolis: Hackett, 1987), §46, 308.

[2] Andrew Sarris, "Notes on the Auteur Theory in 1962," in *Film Theory and Criticism: Introductory Readings*, ed. Leo Braudy and Marshall Cohen (New York: Oxford University Press, 2004), 561-564.

[3] This is especially true of followers of the artgames and newsgames movements, where single-authored games lend themselves to this analysis. For example, see: Kerem Yavuz Demirbas, "Towards a New Understanding of Games: Game Auteur Criticism" (Master's thesis, IT University Copenhagen, 2008).

[4] Theodor Adorno, *Aesthetic Theory*, translated by Robert Hullot-Kentor (Minneapolis: University of Minnesota Press, 1997), 248.

[5] Bogost, *Persuasive Games*, 37.

[6] Raitendo, *You Have to Defecate Upon King Bhumibol* (Self-published, 2009), http://www.kongregate.com/games/raitendo/you-have-to-defecate-upon-king-bhumibol.

[7] Raitendo, *Passage in 10 Seconds* (Self-published, 2010), http://www.kongregate.com/games/raitendo/passage-in-10-seconds.

[8] Raitendo, *You Only Live Once* (Self-published, 2009), http://www.kongregate.com/games/raitendo/you-only-live-once.

[9] Nitsche 198.

[10] Nitsche 113.

[11] *No Russian*, machinima, Michael Barnes (Self-published, 2010).

[12] *In the desert of the real*, machinima, Paolo Pedercini (Troy, New York: Self-published, 2009).

[13] U.S. Army and Secret Level, *America's Army* (U.S. Army, 2002).

[14] A longer analysis of the piece can be found at: Simon Ferrari, "Paolo's Desert of the Real," *News Games*, June 8, 2009, http://jag.lcc.gatech.edu/blog/2009/06/paolos-desert-of-the-real.html.

[15] T.L. Taylor, *Play Between Worlds* (Cambridge, Mass.: MIT Press, 2006), 145-150.

[16] Celia Pearce, "Productive Play: Game Culture from the Bottom Up," *Games & Culture*, Volume 1, Issue 1 (2006): 17-24.

[17] Raph Koster, "A Declaration of the Rights of Avatars," *Raph Koster's Website*, August 27, 2000, http://www.raphkoster.com/gaming/playerrights.shtml.

[18] Julian Dibbell, *my tiny life: crime and passion in a virtual world* (New York: Henry Holt and Company, 1998), 24-25.

[19] Dibbell 79-115.

[20] Matthew Mihaly, *Achaea* (Iron Realms Entertainment, 1997).

[21] T.L. Taylor, "Does WoW Change Everything?: How a PvP Server, Multinational Player Base, and Surveillance Mod Scene Caused Me Pause," *Games and Culture* 1.4 (2006): 318-337.

[22] Pearce, *Communities of Play,* 69-191.

[23] Linden Lab, *Second Life* (Linden Lab, 2003).

[24] For example, the vampire meta-game *Bloodlines* explained here: Harper Ganesvoort, "Putting the Bite on Bloodlines in Second Life," *Around the Grid*, October 23, 2008, http://harperganesvoort.wordpress.com/2008/10/23/putting-the-bite-on-bloodlines-in-second-life/.

[25] Bogost, *Persuasive Games*, 89.

[26] Earlier version of this argument appears in: Simon Ferrari, "Our Amps Go to Eleven," *Chungking Espresso*, April 27, 2009, http://simonferrari.com/2009/04/27/our-amps-go-to-eleven/.

[27] Irrational Games, *BioShock* (2K Games, 2007).

[28] Jesper Juul, "Fear of Failing? The Many Meanings of Difficulty in Games," in *The Video Game Theory Reader 2,* ed. Mark J. P. Wolf & Bernard Perron (New York: Routledge, 2009), 237-252.

[29] From Software, *Demon's Souls* (Atlus, 2009).

[30] Juul, "Fear of Failing? The Many Meanings of Difficulty in Games," 238.

[31] Edge Staff, "Review: Demon's Souls," *EDGE Online*, October 6, 2009, http://www.edge-online.com/magazine/review-demons-souls.

[32] Brendan Main, "Ghosts in the Machine," *Escapist Magazine*, December 22, 2009, http://www.escapistmagazine.com/articles/view/issues/issue_233/6938-Ghosts-in-the-Machine.3.

[33] Michael McWhertor, "2009 Game of the Year Finalist Debate: Demon's Souls," *Kotaku*, January 19, 2010, http://kotaku.com/5449482/2009-game-of-the-year-finalist-debate-demons-souls.

[34] MetroidPrimePwn, comment in "Silly Demons Souls, its easy!," *GameSpot* forums, comment posted November 15, 2009, http://www.gamespot.com/pages/forums/show_msgs.php?topic_id=27103035.

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